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UNIVERSITY OF MARYLAND

Vol. 24

JUNE, 1927

No. 4

CATALOGUE

1927-1928



Containing general information concerning the University.
Announcements for the Scholastic Year 1927-28
and Records of 1926-27.

Issued monthly by the University of Maryland at College Park, Md.,
as second-class matter, under Act of Congress of July 16, 1894.

Calendar for 1927, 1928, 1929

1927							1928							1929						
JULY							JANUARY							JULY						
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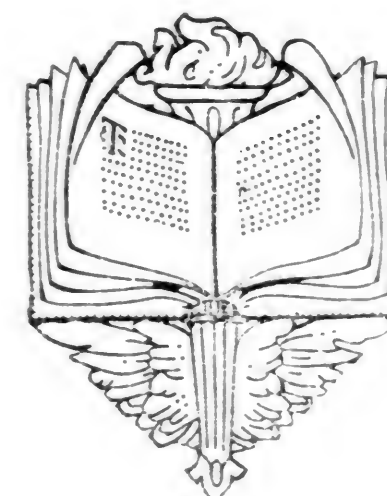
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JULY							JANUARY							JULY						
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AUGUST							FEBRUARY							AUGUST						
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DECEMBER							JUNE							DECEMBER						
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UNIVERSITY CALENDAR

1927-1928

COLLEGE PARK

First Semester

1927		
Sept. 19-20	Monday-Tuesday	Registration for Freshmen.
Sept. 21	Wednesday	Registration for all other students.
Sept. 22	Thursday	Instruction for first semester begins.
Sept. 28	Wednesday	Last day to change registration or to file schedule card without fine.
Nov. 11	Friday	Observance of Armistice Day.
	Wednesday, 4.20 p.m.-	
Nov. 23-28	Monday, 8.20 a.m.	Thanksgiving Recess.
Dec. 21	Wednesday, 12.10 p.m.	Christmas Recess begins.
1928		
Jan. 2	Monday, 8.20 a.m.	Christmas Recess ends.
Jan. 18-21	Wednesday-Saturday	Registration for second semester.
Jan. 23-28	Monday-Saturday	First semester examinations.
Jan. 30	Monday	Last day to register for second semester without payment of late registration fee.

Second Semester

Jan. 31	Tuesday, 8.20 a.m.	Instruction for second semester begins.
Feb. 6	Monday	Last day to change registration or to file schedule card without fine.
Feb. 22	Wednesday	Washington's Birthday. Holiday.
Mch. 26	Monday	Observance of Maryland Day.
Apr. 5-11	Thursday, 12.10 p.m.- Wednesday, 8.20 a.m.	Easter Recess.
May 10-11	Wednesday-Thursday	Afternoons
		Festival of Music.
May 16-19	Wednesday-Saturday	Registration for first semester, 1928-1929.
May 23-29	Wednesday-Tuesday	Second semester examinations for seniors.
May 26-June 2	Saturday-Saturday	Second semester examinations.
May 30	Wednesday	Memorial Day. Holiday.
June 3	Sunday, 11 a.m.	Baccalaureate Sermon.
June 4	Monday	Class Day.
June 5	Tuesday, 11 a.m.	Commencement.

IV

Summer Term

June 11-16	Monday-Saturday	Rural Women's Short Course.
June 20	Wednesday	Summer School begins.
July 31	Tuesday	Summer School ends.
Aug. 2-7	Thursday-Tuesday	Boys' and Girls' Club Week.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1927		
September	19	Registration begins.
September	26	Instruction begins with the first scheduled period.
October	3	Last day to register without paying fine of \$5.00.
November	11	Holiday (Armistice Day).
November	23	Thanksgiving recess begins after the last schedule period.
November	28	Instruction resumed with the first scheduled period.
December	21	Christmas recess begins after the last scheduled period.
1928		
January	3	Instruction resumed with the first scheduled period.
January	16	Registration begins for second semester.

Second Semester

January	30	Instruction begins with the first scheduled period.
February	4	Last day to register without paying fine of \$5.00.
February	22	Holiday (Washington's Birthday).
April	5	Easter recess begins after the last scheduled period.
April	10	Instruction resumed with the first scheduled period.
June	2	Commencement Day.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

BOARD OF REGENTS

SAMUEL M. SHOEMAKER, Chairman.....	815 <i>Indelible</i>	1924-1933
<i>Brunswick</i> Eccleston, Baltimore County		
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Mt. Victoria, Charles County	<i>Work DC</i>	
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E. BROOKE LEE (Appointed 1927).....		1926-1935
Silver Spring, Montgomery County		
HENRY HOLZAPFEL, JR.....		1925-1934
Hagerstown, Washington County		

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T. B. SYMONS, M.S., D.Agr., Director of the Extension Service.
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G. S. SMARDON, Comptroller.
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RUTH LEE BRISCOE, Librarian (Baltimore).

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ROBERT H. FREEMAN, A.M., LL.B., Assistant Dean of the School of Law.
E. FRANK KELLY, Phar.D., Advisory Dean of the School of Pharmacy.
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M. MARIE MOUNT, M.A., Dean of the College of Home Economics.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School.
ADELE H. STAMP, M.A., Dean of Women.
R. S. LYTLE, Major Inf., D.O.L., P.M.S. & T., Head of the Department of Military Science and Tactics.

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E. C. AUCHTER, Ph.D., Professor of Horticulture.
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For the Year 1926-1927

At College Park

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L. B. BROUGHTON, Ph.D., Professor of Agricultural and Food Chemistry, Chairman of the Pre-Medical Committee.
O. C. BRUCE, M.S., Professor of Soils.
H. C. BYRD, B.S., Assistant to the President, Director of Athletics.
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R. W. CARPENTER, A.B., LL.B., Professor of Agricultural Engineering and Lecturer in Law.
E. N. CORY, Ph.D., Professor of Entomology, State Entomologist.
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HAYES BAKER-CROTHERS, Ph.D., Professor of History.
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Dean of the College of Arts and Sciences, Executive Dean of the University.
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J. B. S. NORTON, M.S., D.Sc., Professor of Systematic Botany and Mycology.

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 C. E. TEMPLE, M.A., Professor of Plant Pathology, State Plant Pathologist.
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ASSISTANT PROFESSORS

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 U. R. BOSWELL, Ph.D., Assistant Professor of Horticulture.
 TOBIAS DANTZIG, Ph.D., Assistant Professor of Engineering Mechanics.

G. EPPLEY, M.S., Assistant Professor of Agronomy.
 W. G. FRIEDERICH, M.A., Assistant Professor of Modern Languages.
 CHARLES B. HALE, Ph.D., Assistant Professor of English.
 SYDNEY S. HANDY, M.A., Assistant Professor of English.
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 H. B. HOSHALL, B.S., Assistant Professor of Mechanical Engineering.
 W. E. HUNT, M.S., Assistant Professor of Animal Husbandry.
 L. W. INGHAM, M.S., Assistant Professor of Dairy Production.
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 EDGAR F. LONG, M.A., Assistant Professor of Education.
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 PEARL McCONNELL, M.A., Assistant Professor of Zoology.
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 GEO. D. QUIGLEY, B.S., Assistant Professor of Poultry Husbandry.
 A. W. RICHESON, M.A., Assistant Professor of Mathematics.
 C. I. SILIN, B.S., Assistant Professor of Romance Languages.
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 J. T. SPANN, B.S., Assistant Professor of Mathematics.
 J. H. SCHAD, M.A., Assistant Professor of Mathematics.
 M. F. WELSH, D.V.M., Assistant Professor of Bacteriology.
 W. E. WHITEHOUSE, M.S., Assistant Professor of Pomology.

INSTRUCTORS

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 HELEN V. BARNES, B.S., Head of Catalog Department, Instructor in Library Science.
 R. M. BROWNING, A.M., Instructor in Educational Psychology.
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 J. B. BLANDFORD, Instructor in Horticulture, Horticultural Superintendent.
 G. F. CADISCH, B.S., M.B.A., Instructor in Banking and Finance, Assistant to the Dean, College of Arts and Sciences.
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 D. T. ORDEMAN, A.B., Instructor in English.

M. A. PYLE, B.S., Instructor in Civil Engineering.
 GRACE RAEZER, R.N., Instructor in Home Nursing and Hygiene.
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 H. B. SHIPLEY, Instructor in Physical Education.
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 CONSTANCE STANLEY, M.A., Instructor in Modern Languages.
 E. B. STARKEY, Ph.D., Instructor in Chemistry.
 GUY P. THOMPSON, B.S., Instructor in Zoology.
 G. E. VANDEN BOSCHE, B.S., Instructor in Chemistry.
 R. M. WATKINS, M.A., Instructor in Public Speaking.
 C. E. WHITE, Ph.D., Instructor in Chemistry.

ASSISTANTS

JESSIE BLAISDELL, Assistant in Music.
 L. E. BOPST, B.S., Assistant State Chemist.
 NELLIE BUCKEY, B. S., Assistant in Home Economics Education.
 E. C. DONALDSON, M.S., Assistant Chemist and Inspector.
 GEORGE W. FOGG, B.A., Assistant in the Library.
 W. M. J. FOOTEN, Assistant Chemist and Inspector.
 W. J. HART, M.S., Assistant in Agricultural Economics.
 EDNA HENDERSON, B.S., Assistant in Home Economics.
 DONALD HENNICK, Shop Assistant.
 A. H. HOLLAND, B.S., Assistant in Dairy Manufacturing.
 AUDREY KILLIAM, B. S., Assistant in Home Economics.
 PAUL KNIGHT, B.S., Assistant in Entomology.
 H. S. McCONNELL, B.S., Assistant in Entomology.
 PAUL PELTIER, B.S., Assistant in Entomology.
 PAULINE RICE, A. B., Assistant to the Dean of Women.
 J. E. RICE, Assistant in Chemistry.
 ROBERT STRAKA, M.S., Assistant in Bacteriology.
 J. M. SNYDER, B.S., Assistant in Soils.
 L. H. VAN WORMER, M.S., Assistant Chemist.
 H. R. WALLS, Assistant Chemist and Inspector.
 J. J. WETHERALD, Assistant in Dairy Manufacturing.
 LEE WILES, Assistant in Dairy Manufacturing.
 H. B. WINANT, Assistant in Soils.

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F. R. DARKIS, M.S., Fellow in Chemistry.
 R. B. ENGLE (MISS), B.S., Fellow in Foods and Nutrition.
 H. E. ENSOR (MISS), B.S., Fellow in Home and Institutional Management.
 J. E. FABER, B.S., Fellow in Bacteriology.
 A. L. FLENNER, M.S., Fellow in Chemistry.
 G. K. HOLMES, B.S., Fellow in Chemistry.
 J. D. HOOPES, B.S., Fellow in Dairy Husbandry.
 C. A. JONES, B.S., Fellow in Soils.
 M. LEATHERMAN, M.S., Fellow in Chemistry.
 M. E. SAVAGE (MISS), B.A., Fellow in Sociology.
 C. H. SPIEGELBERG, M.S., Fellow in Plant Pathology.
 W. C. SUPPLEE, B.S., Fellow in Chemistry.
 W. H. UPSHALL, B.S., Fellow in Horticulture.
 M. S. WHALEY, B.S., Fellow in Agronomy.
 G. B. COOKE, M.S., Graduate Assistant in Chemistry.
 H. B. FARLEY, B.S., Graduate Assistant in Horticulture.
 G. V. C. HOUGHLAND, M.S., Graduate Assistant in Soils.
 H. A. HUNTER, M.S., Graduate Assistant in Plant Pathology.
 P. V. MOOK, M.S., Graduate Assistant in Botany.
 A. C. PARSONS, A.B., Graduate Assistant in Modern Languages.
 L. S. STUART, B.S., Graduate Assistant in Bacteriology.
 I. E. WHEATON, B.S., Graduate Assistant in Bacteriology.
 R. C. YODER, B.S., Graduate Assistant in Horticulture.

FACULTY COMMITTEES—1927-1928

At College Park

ALUMNI

Messrs. Bomberger, Hoshall, Byrd, Hillegeist, Cory, Eppley, Broughton and Truitt.

BUILDINGS

Messrs. Crisp, Johnson, Meade, Pierson, Bruce, Mackert, Eichlin and Harvey.

CATALOGUE, STUDENT ENROLLMENT AND ENTRANCE

Messrs. Small, ~~Zimmerman~~, ~~Lee~~, ~~Johnson~~, ~~Appleman~~, ~~Johnston~~, and Misses Mount, Stamp and Preinkert. *Patt Tal House Kan*

CLASS ASSIGNMENT

Messrs. Carpenter, Eppley, M. F. Welsh, Pyle, Hennick, White, Ordeman, Mrs. McConnell, Mrs. Welsh, Misses Harman, Preinkert and one member from the Military Department.

COMMENCEMENT AND MARYLAND DAY

Messrs. T. H. Taliaferro, Richardson, House, Lytle, Thurston, Cory, Truitt and Miss Mount.

EDUCATIONAL STANDARDS

Messrs. Appleman, Lee, Gordon, Johnson, Small, McCall, Zucker, Freeman and Hillegeist.

FARMERS.. DAY

Messrs. Patterson, Symons, Zimmerman, Waite and Miss Mount.

GROUNDS AND ROADS

Messrs. Auchter, Thurston, Crisp, Patterson, Steinberg, Metzger, Carpenter and Gwinner.

INSTRUCTION

Messrs. Lee, Cotterman, Creese, Gordon, Kemp, Lytle, Pickens, T. H. Taliaferro, Pierson, Auchter, Mrs. McFarland, Miss Preinkert and Deans Ex-officio.

LIBRARY

Messrs. Appleman, W. T. L. Taliaferro, House, Steinberg, Zucker and Miss Barnes.

PRE-MEDICAL EDUCATION

Messrs. Broughton, Cory, Davis, Lee, Spence, Wiley and M. F. Welsh.

SANITATION

Messrs. Pickens, Griffith, Reed, W. T. L. Taliaferro, Pyle, Small and Miss Mount.

STUDENT AFFAIRS

Messrs. Small, Byrd, Broughton, Johnson, Spence, Kemp, Creese, Mackert and Misses Stamp and McNaughton.

STUDENT BUSINESS AND AUDITING

Miss McKenney and Messrs. Spann, Hoshall, Mackert, Shadick and Bowers, and President of the Students' Assembly.

STUDENT LOANS

Misses McKenney and Preinkert, W. T. L. Taliaferro, and President of the Senior Class.

AGRICULTURAL EXPERIMENT STATION STAFF

HARRY J. PATTERSON, D.Sc.....Director and Chemist.

Agricultural Economics:

S. H. DEVALT, A.M.....Agricultural Economics.

PAUL WALKER, M.S.....Assistant, Agricultural Economics.

W. J. HART, M.S.Assistant, Agricultural Economics.

Agronomy:

J. E. METZGER, B.S., A.M.....Agronomy.

W. B. KEMP, B.S.....Associate, Agronomy.

G. EPPLEY, M.S.....Assistant, Agronomy.

R. G. ROTHGEB, M.S.....Assistant, Agronomy.

R. L. SELLMAN, B.S.....Assistant, Agronomy and Superintendent of Farm.

Animal and Dairy Husbandry:

DEVoe MEADE, Ph.D.....Dairy and Animal Husbandry.

B. E. CARMICHAEL, M.S.....Animal Husbandry.

S. H. HARVEY, M.S.....Assistant, Dairy Manufacturing.

L. W. INGHAM, M.S.....Assistant, Dairy Production.

R. C. MUNKWITZ, M.S.....Assistant, Market Milk.

Animal Pathology and Bacteriology:

E. M. PICKENS, A.M., D.V.M.....Animal Pathology.

H. B. McDONNELL, M.S., M.D.....Pathological Chemist.

L. J. POELMA, D.V.M.....Assistant, Animal Pathology.

Botany:

P. W. ZIMMERMAN, Ph.D.....Botany and Plant Propagation.

Entomology:

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H. S. McCONNELL, M.S.....Associate, Entomology.
PAUL KNIGHT, B.S.....Assistant, Entomology.
PAUL Z. PELTIER, B.S.....Assistant, Entomology.

Horticulture:

E. C. AUCHTER, Ph.D.Horticulture.
F. W. GEISE, M.S.....Olericulture.
T. H. WHITE, M.S.....Olericulture and Floriculture.
A. L. SCHRADER, Ph.D.....Associate, Pomology.
V. R. BOSWELL, M.S.....Assistant, Olericulture.

Plant Pathology:

J. B. S. NORTON, M.S., D.Sc.....Plant Pathology.
R. A. JEHL, Ph.D.....Associate, Plant Pathology.
A. J. MOYER, B.S.....Assistant, Plant Pathology.

Plant Physiology:

C. O. APPLEMAN, Ph.D.....Plant Physiology.
E. S. JOHNSTON, Ph.D.....Associate, Plant Physiology.
C. M. CONRAD, Ph.D.....Assistant, Plant Physiology.
C. L. SMITH, B.S.....Assistant, Plant Physiology.

Poultry Husbandry:

R. H. WAITE, B.S.....Poultry Husbandry.
GEO. D. QUIGLEY, B.S.....Assistant, Poultry Husbandry.

Seed Inspection:

F. S. HOLMES, B.S.....Inspector.
ANNA M. H. FERGUSON.....Assistant Analyst.
ELLEN EMACK.....Assistant Analyst.
OLIVE M. KELK.....Assistant Analyst.
RUTH M. MOSTYN.....Assistant Analyst.
KATHERINE SMITH.....Assistant Analyst.

Soils:

A. G. McCALL, Ph.D.....Soils.
R. R. McKIBBIN, Ph.D.....Assistant, Soils.
J. M. SNYDER, B.S.....Assistant, Soils.
H. B. WINANT, M.S.....Assistant, Soils.

EXTENSION SERVICE STAFF

*THOMAS B. SYMONS, M.S., D.Agr....Director.

‡F. B. BOMBERGER, B.S., A.M., D.Sc.....Assistant Director Specialist in
Rural Organization and Mar-
keting and Chief, Maryland
State Dept. of Markets.

*E. G. JENKINS.....State Boys' Club Agent.

*MISS VENIA M. KELLAR, B.S.....State Home Demonstration Agent.

*MISS DOROTHY EMERSON.....Girls' Club Agent.

*MRS. H. V. MCKINLEY, B.S.....District Agent and Clothing Spe-
cialist.

*MISS MARGARET MCPHEETERS, M.S...District Agent and Nutrition Spe-
cialist.

†E. C. AUCHTER, M.S., Ph.D.....Specialist in Horticulture.

W. R. BALLARD, B.S.....Specialist in Vegetable and Land-
scape Gardening.

M. D. BOWERS, B.S.....Specialist in Agricultural Jour-
nalism.

†R. W. CARPENTER, A.B., LL.B....Specialist in Agricultural Engi-
neering.

K. A. CLARK, M.S.....Specialist in Animal Husbandry.

J. A. CONOVER, B.Sc.....Specialist in Dairying.

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†S. H. DEVAULT, A.M.....Specialist in Marketing.

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†R. A. JEHL, B.S.A., Ph.D.....Specialist in Pathology.

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F. W. OLDENBERG, B.S.....Specialist in Agronomy.

W. H. RICE, B.S.....Specialist in Poultry.

†C. S. RICHARDSON, A.M.....Specialist in Educational Exten-
sion.

P. D. SANDERS, M.S.....Associate Entomologist.

S. B. SHAW, B.S.....Chief Inspector and Specialist in
Marketing.

†W. T. L. TALIAFERRO, A.B., Sc.D....Specialist in Farm Management.

†C. E. TEMPLE, M.A.....Specialist in Plant Pathology.

F. B. TRENK, B.S.....Specialist in Forestry.

A. F. VIERHELLER, M.S.....Specialist in Horticulture.

* In co-operation with the United States Department of Agriculture.

‡ Absent on leave 1927-1928.

† Devoting part time to Extension Work.

COUNTY AGENTS

County	Name	Headquarters
Allegany.....	*R. F. MCHENRY, B.S.....	Cumberland.
Anne Arundel.....	*S. E. DAY, B.S.....	Annapolis.
Baltimore.....	*W. C. ROHDE, B.S.....	Towson.
Calvert.....	*JOHN B. MORSELL, B.S.....	Prince Frederick.
Caroline.....	*T. D. HOLDER, B.S.....	Denton.
Carroll.....	*E. K. WALRATH, B.S.....	Westminster.
Cecil.....	*T. H. BARTILSON, B.S.....	Elkton.
Charles.....	*G. R. STUNTZ, B.S.....	La Plata.
Dorchester.....	*WM. R. MCKNIGHT, B.S.....	Cambridge.
Frederick.....	*H. R. SHOEMAKER, B.S., M.A.....	Frederick.
Garrett.....	*JOS. L. MCGLONE, B.S.....	Oakland.
Harford.....	*H. M. CARROLL, B.S. (Acting).....	Bel Air.
Howard.....	*M. H. FAIRBANK.....	Ellicott City.
Kent.....	*H. B. DERRICK, B.S.....	Chestertown.
Montgomery.....	*O. W. ANDERSON, M.S.....	Rockville.
Prince George's.....	*W. B. POSEY, B.S.....	Upper Marlboro.
Queen Anne's.....	*E. W. GRUBB, B.S.....	Centerville.
St. Mary's.....	*G. F. WATHEN.....	Loveville.
Somerset.....	*C. Z. KELLER, B.S.....	Princess Anne.
Talbot.....	*E. P. WALLS, M.S.....	Easton.
Washington.....	*M. D. MOORE, M.S.....	Hagerstown.
Wicomico.....	*J. P. BROWN, B.S.....	Salisbury.
Worcester.....	*E. I. OSWALD, B.S.....	Snow Hill.

Assistant County Agents

Harford.....*W. H. EVANS, B.S.....Bel Air.

Local Agents

Southern Md.....*J. F. ARMSTRONG (Col.).....Seat Pleasant.
Eastern Shore.....*L. H. MARTIN (Col.).....Princess Anne.

COUNTY HOME DEMONSTRATION AGENTS

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Anne Arundel.....	*MRS. G. LINTHICUM.....	Annapolis.
Baltimore.....	*EDYTHE TURNER.....	Towson.
Caroline.....	*BESSIE SPAFFORD, B.S.....	Denton.
Carroll.....	*AGNES SLINDEE, B.A.....	Westminster.
Cecil.....	*PRISCILLA PANCOAST, B.S.....	Elkton.
Charles.....	*ULA FAY.....	La Plata.
Dorchester.....	*HATTIE BROOKES, A.B.....	Cambridge.
Frederick.....	*ELIZABETH R. THOMPSON, B.S.....	Frederick.

County	Name	Headquarters
Garrett.....	*LOLA B. GREEN, B.S.....	Oakland.
Harford.....	*EVA K. SCHURR, B.S.....	Bel Air.
Howard.....	*VIDA N. METZGER, B.S.....	Ellicott City.
Kent.....	*HELEN SCHELLINGER.....	Chestertown.
Montgomery.....	*BLANCHE A. CORWIN, B.S.....	Rockville.
Prince George's.....	*ETHEL REGAN.....	Hyattsville.
St. Mary's.....	*ETHEL JOY.....	Leonardtown.
Talbot.....	*MRS. OLIVE K. WALLS.....	Easton.
Washington.....	*MARGARET SMITH, B.S.....	Hagerstown.
Wicomico.....	*FLORENCE MASON, B.S.....	Salisbury.
Worcester.....	*LUCY J. WALTER.....	Snow Hill.

Assistant Home Demonstration Agent

Frederick.....*KATHERINE BAKER, B.S.....Frederick.

Local Home Demonstration Agent

Charles and
St. Mary's.....*LEAH W. HOPEWELL.....La Plata.

Garden Specialist

Madison and La-
fayette Aves.,
Administration
Bldg, Balto.... MRS. ADELAIDE DERRINGER.....Baltimore, Md.

* In co-operation with United States Department of Agriculture.

OFFICERS OF INSTRUCTION

At Baltimore

PROFESSORS

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 HARVEY G. BECK, M.D., Sc.D., Professor of Clinical Medicine.
 CHARLES F. BLAKE, M.D., A.M., Professor of Proctology.
 CHARLES E. BRACK, Ph.G., M.D., Professor of Clinical Obstetrics.
 JOHN H. BRANHAM, M.D., Professor of Clinical Surgery.
 EDWARD N. BRUSH, M.D., Emeritus Professor of Psychiatry.
 R. M. CHAPMAN, M.D., Professor of Psychiatry.
 ALBERTUS COTTON, A.M., M.D., Professor of Orthopedic Surgery and Roentgenology.
 ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of School of Nursing.
 J. FRANK CROUCH, M.D., Emeritus Professor of Clinical Ophthalmology and Otology.
 W. M. CUTCHIN, Phar.D., LL.B., Professor of Business Administration.
 DAVID M. R. CULBRETH, A.M., Ph.G., M.D., Professor Emeritus of Botany and Materia Medica.
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 S. GRIFFITH DAVIS, A.B., M.D., Professor of Anaesthesia.
 HORACE N. DAVIS, D.D.S., F.A.C.D., Professor of Exodontia, Anaesthesia and Radiodontia.
 GEORGE W. DOBBIN, M.D., Professor of Obstetrics.
 J. W. DOWNEY, M.D., Clinical Professor of Otology.
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 JULIUS FRIEDENWALD, A.M., M.D., Professor of Gastro-Enterology.
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 ANDREW C. GILLIS, A.M., M.D., Professor of Neurology and Clinical Psychiatry.
 NEIL E. GORDON, Ph.D., Professor of Chemistry.

FRANK W. HACHTEL, M.D., Professor of Bacteriology.
 HON. HENRY D. HARLAN, A.B., A.M., LL.B., LL.D., Dean of School of Law.
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 JOSEPH W. HOLLAND, M.D., Clinical Professor of Surgery.
 EDWARD HOFFMEISTER, A.B., D.D.S., Professor of Materia Medica and Therapeutics.
 J. MASON HUNDLEY, M.D., Professor of Clinical Gynecology.
 BURT B. IDE, D.D.S., Professor of Operative Dentistry.
 C. HAMPSON JONES, M.D., C.M. (Edinburgh), Professor of Hygiene and Public Health.
 E. FRANK KELLY, Phar.D., Emeritus Professor of Chemistry, Advisory Dean of School of Pharmacy.
 JOHN C. KRANTZ, JR., Ph.C., Phar.B., M.S., Professor of Pharmacy.
 T. FRED LEITZ, M.D., Clinical Professor of Gastro-Enterology.
 BENJAMIN T. LELAND, A.M., Professor of Industrial Education.
 G. MILTON LINTHICUM, A.M., M.D., Professor of Diseases of Rectum and Colon.
 G. CARROLL LOCKARD, M.D., Professor of Clinical Medicine.
 A. J. LOMAS, M.D., P.P.H., Superintendent of the University Hospital.
 EDWARD A. LOOPER, M.D., D.Oph., Clinical Professor of Diseases of the Nose and Throat.
 FRANK S. LYNN, M.D., Clinical Professor of Surgery.
 STANDISH MCCLEARY, M.D., Professor of Pathology and Clinical Medicine.
 CHARLES W. McELFRESH, M.D., Professor of Clinical Medicine.
 ALEXIUS MCGLANNAN, A.M., M.D., LL.D., Professor of Surgery.
 HOWARD J. MALDEIS, M.D., Professor of Embryology and Histology.
 SAMUEL K. MERRICK, M.D., Emeritus Professor of Rhinology and Laryngology.
 ROBERT L. MITCHELL, Phar.D., M.D., Professor of Physiology, Hygiene, Bacteriology and Pathology.
 BERNARD P. MUSE, M.D., Professor of Clinical Obstetrics.
 L. E. NEALE, M.D., LL.D., Emeritus Professor of Obstetrics.
 CHARLES O'DONOVAN, A.M., M.D., LL.D., Emeritus Professor of Clinical Medicines and Pediatrics.
 J. EDGAR ORRISON, D.D.S., Emeritus Professor of Operative Dentistry.
 ALEXANDER H. PATERSON, D.D.S., F.A.C.D., Professor of Prosthetic Dentistry.
 MAURICE C. PINCOFFS, S.B., M.D., Professor of Medicine.
 CHARLES C. PLITT, Ph.G., Sc.D., Professor of Botany and Materia Medica.
 COMPTON RIELY, M. D., Clinical Professor of Orthopedic Surgery.
 J. M. H. ROWLAND, M.D., Professor of Obstetrics, Dean of the School of Medicine.
 EDWIN G. W. RUGE, A.B., A.M., LL.B., Professor of Law.
 JOHN RUHRAH, M.D., Professor of Pediatrics.

A. H. RYAN, M.D., Professor of Physiology.
 ANTON G. RYTINA, A.B., M.D., Professor of Genito-Urinary Diseases.
 J. BEN ROBINSON, D.D.S., F.A.C.D., Professor of Dental Anatomy, Dean of the School of Dentistry.
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 WILLIAM H. SCHULTZ, Ph.B., Ph.D., Professor of Pharmacology.
 ARTHUR M. SHIPLEY, M.D., Sc.D., Professor of Surgery.
 W. S. SMITH, M.D., Clinical Professor of Gynecology.
 IRVING J. SPEAR, M.D., Professor of Neurology and Clinical Psychiatry.
 HUGH R. SPENCER, M.D., Professor of Pathology.
 WILLIAM ROYAL STOKES, M.D., Sc.D., Professor of Bacteriology.
 CHARLES L. SUMMERS, M.D., Professor of Pediatrics.
 R. TUNSTALL TAYLOR, A. B., M. D., Professor of Orthopedic Surgery.
 HENRY J. WALTON, M.D., Professor of Roentgenology.
 GORDON WILSON, M.D., Professor of Medicine.
 JOHN R. WINSLOW, A.B., M.D., Emeritus Professor of Rhinology and Laryngology.
 NATHAN WINSLOW, A.M., M.D., Clinical Professor of Surgery.
 RANDOLPH WINSLOW, A M., M.D., LL.D., Emeritus Professor of Surgery.
 WALTER D. WISE, M.D., Clinical Professor of Surgery.
 J. CARLTON WOLF, B.Sc., Phar. D., Professor of Dispensing.
 HIRAM WOODS, M.D., LL.D., Emeritus Professor of Ophthalmology and Otolaryngology.
 H. BOYD WYLIE, M D., Professor of Biological Chemistry.

ASSOCIATE PROFESSORS

J. MCFARLAND BERGLAND, M.D., Associate Professor of Obstetrics.
 WALTER A. BAETJER, Associate Professor of Medicine.
 HUGH BRENT, M.D., Associate Professor of Gynecology.
 THOMAS R. CHAMBERS, A.M., M.D., Associate Professor of Surgery.
 PAUL W. CLOUGH, B.S., M.D., Associate Professor of Medicine.
 B. OLIVE COLE, Phar.D., LL.B., Associate Professor of Botany and Materia Medica, and Lecturer in Pharmaceutical Law.
 SIDNEY M. CONE, A.B., M.D., Associate Professor of Pathology.
 C. C. CONSER, M.D., Associate Professor of Physiology.
 LOUIS H. DOUGLASS, M.D., Associate Professor of Obstetrics.
 C. REID EDWARDS, M.D., Associate Professor of Surgery.
 O. G. HARNE, A.B., Associate Professor of Pharmacology.
 ELLIOTT H. HUTCHINS, A.B., M.D., Associate Professor of Surgery.
 C. C. W. JUDD, A.B., M.D., Associate Professor of Medicine.
 M. RANDOLPH KAHN, M.D., Associate Professor of Ophthalmology.
 R. W. LOCHER, M.D., Associate Professor of Operative and Clinical Surgery.
 H. D. MCCARTHY, M.D., Associate Professor of Clinical Medicine.
 H. J. MALDEIS, M.D., Associate Professor of Medical Jurisprudence and of Bacteriology.

SIDNEY R. MILLER, A.B., M.D., Associate Professor of Medicine.
 J. DAWSON REEDER, M.D., Associate Professor of Proctology.
 HARRY M. ROBINSON, M.D., Associate Professor of Dermatology.
 LEWIS J. ROSENTHAL, M.D., Associate Professor of Proctology.
 MELVIN ROSENTHAL, M.D., Associate Professor of Dermatology.
 ABRAHAM SAMUELS, M.D., Associate Professor of Gynecology.
 G. M. SETTLE, A.B., M.D., Associate Professor of Neurology.
 WILLIAM SMITH, M.D., Associate Professor of Clinical Medicine.
 HARRY M. STEIN, M.D., Associate Professor of Medicine.
 H. S. SULLIVAN, M.D., Associate Professor of Psychiatry.
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 EDUARD UHLENHUTH, Ph.D., Associate Professor of Anatomy.
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 MARVIN J. ANDREWS, Ph.G., Assistant Professor of Dispensing.
 R. W. AUSTERMAN, Ph.B., Assistant Professor of Physics.
 GERALD I. BRANDON, D.D.S., Assistant Professor of Crown and Bridge.
 FRANCES M. BRANLEY, R.N., Assistant Superintendent of Nurses.
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 W. G. FRIEDRICH, B.A., M.A., Assistant Professor of Modern Languages.
 GRAYSON W. GAVER, D.D.S., Assistant Professor of Prosthetic Dentistry.
 C. C. HABLSTON, M.D., Assistant Professor of Medicine.
 JOHN G. HUCK, M.D., Assistant Professor of Medicine.
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 C. L. JOSLIN, M.D., Assistant Professor of Pediatrics.
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 GEORGE MCLEAN, M.D., Assistant Professor of Medicine.
 THEODORE MORRISON, M.D., Assistant Professor of Gastro-Enterology.
 BENJAMIN PUSHKIN, M.D., Assistant Professor of Clinical Neurology.
 WALTER F. SOWERS, M.D., Assistant Professor of Bacteriology and Pathology.
 A. ALLEN SUSSMAN, A.B., D.D.S., M.D., Assistant Professor of Anatomy.
 J. HARRY ULLRICH, M.D., Assistant Professor of Gastro-Enterology.
 J. HERBERT WILKERSON, M.D., Assistant Professor of Anatomy.

LECTURERS

ALFRED BAGBY, JR., A.B., LL.B., Ph.D., Lecturer in Testamentary Law.
 CARLYLE BARTON, A.B., LL.B., Lecturer in Partnership.
 FORREST BRAMBLE, LL.B., Lecturer in Bills and Notes.
 J. WALLACE BRYAN, A.B., Ph.D., LL.B., Lecturer in Pleadings and Carriers.
 HOWARD BRYANT, A.B., Lecturer in Practice in State Courts.
 JAMES T. CARTER, A.B., LL.B., Ph.D., Lecturer in Legal Bibliography.
 W. CALVIN CHESNUT, A.B., LL.B., Lecturer in Federal Procedure and Insurance.
 WALTER L. CLARK, LL.B., Lecturer in Evidence.
 JAMES U. DENNIS, LL.B., Lecturer in Personal Property.
 EDWIN T. DICKERSON, A.B., A.M., LL.B., Lecturer in Contracts.
 ELI FRANK, A.B., LL.B., Lecturer in Torts.
 MATTHEW GAULT, Litt.B., LL.B., Lecturer in Domestic Relations.
 SIDNEY S. HANDY, A.B., M.A., Lecturer in English and Public Speaking.
 T. O. HEATWOLE, M. D., D.D.S., D.Sc., Secretary of the Baltimore Schools, Lecturer in Ethics and Jurisprudence.
 WILLIAM G. HELFRICH, A. B., LL. B., Lecturer in Domestic Relations.
 CHARLES MCH. HOWARD, A.B., LL.B., Lecturer in Equity.
 ARTHUR L. JACKSON, LL.B., Lecturer in Conflict of Laws.
 GEORGE C. KARN, D.D.S., Lecturer in Radiodontia.
 SYLVAN HAYES LAUCHHEIMER, A.B., LL.B., Lecturer in Bankruptcy.
 ROY P. MAY, D.D.S., Lecturer in Dental History and Pedodontia.
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 EUGENE O'DUNNE, A.M., LL.B., Lecturer in Criminal Law.
 JOHN R. OLIVER, M.D., Lecturer on History of Medicine.
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 G. RIDGLEY SAPPINGTON, LL.B., Lecturer in Practice in State Courts and Practice Court.
 MORRIS A. SOPER, A.B., LL.B., Lecturer in Corporations.
 GUY P. THOMPSON, A.B., Lecturer in Biology and Zoology.
 CLARENCE A. TUCKER, LL.B., Lecturer in Equity Procedure.
 JOSEPH N. ULMAN, A.B., A.M., Lecturer in Sales.
 LEO A. WALZAK, D.D.S., Lecturer in Periodontia and Oral Hygiene.
 R. DORSEY WATKINS, LL.B., Ph.D., Lecturer in Torts.
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WILLIAM H. DANIELS, M.D., Associate in Orthopedic Surgery.
 A. M. EVANS, M.D., Associate in Surgery.
 MAURICE FELDMAN, M.D., Associate in Gastro-Enterology.
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 THOMAS K. GALVIN, M.D., Associate in Gynecology.
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 F. L. JENNINGS, M.D., Associate in Surgery.
 E. S. JOHNSON, M.D., Associate in Surgery.
 JOS. I. KEMLER, M.D., Associate in Ophthalmology.
 L. A. M. KRAUSE, M.D., Associate in Medicine.
 MILFORD LEVY, M.D., Associate in Neurology.
 J. F. LUTZ, M.D., Associate in Histology.
 W. I. MESSICK, M.D., Associate in Clinical Medicine.
 R. C. METZEL, M.D., Associate in Clinical Medicine.
 SAMUEL W. MOORE, D.D.S., Associate in Anaesthesia.
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 ELIZABETH AITKENHEAD, R.N., Surgical Technique for Nurses and Supervisor of Operating Pavilion.
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 KENNETH BOYD, M.D., Practical Anatomy.
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 ROBERT C. YATES, A.B., B.S., Mathematics.
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 M. G. GICHNER, M.D., Assistant in Medicine.
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JOSEPH MILLETT, Ph.G., Assistant in Zoology.
DWIGHT MOHR, M.D., Assistant in Surgery.
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JOHN A. O'CONNOR, M.D., Assistant in Surgery.
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J. O. WARFIELD, M.D., A.M., Assistant in Surgery.
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FLOYD WIRSING, Assistant in Chemistry.
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I. S. ZINBERG, M.D., Assistant in Gastro-Enterology.

FACULTY COMMITTEES—1927-1928

At Baltimore

LIBRARY

(Medicine) Doctors Lynn, Ryon, Friedenwald, Cohen and Wylie; (Dentistry) Doctors Gaver, Zelwis, Aisenberg and McDonald; (Pharmacy) Messrs. Plitt and Krantz and Miss Cole; (Law) Messrs. Sappington, Rose and Greeman, and Mrs. Briscoe.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore schools are given in the separate announcements issued by the several schools.

SECTION I

GENERAL INFORMATION

HISTORICAL STATEMENT

The history of the present University of Maryland is the history of two institutions until they were merged in 1920. These were the old University of Maryland in Baltimore and the Maryland State College in College Park.

The beginning of this history was in 1807 when a charter was granted to the College of Medicine of Maryland. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here were founded one of the first medical libraries and the first medical school library in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish a "faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added a college of dentistry, a school of pharmacy and a school of nursing. No significant change in the organization of the University occurred until 1920, more than one hundred years after the original establishment in 1812.

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed Western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This

grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least in part, a State institution. In the fall of 1914 control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. The University Senate and the Administrative Council act in an advisory capacity to the President. The composition of these bodies is given elsewhere.

The University organization comprises the following administrative divisions:

- College of Agriculture.
- Agricultural Experiment Station.
- Extension Service.
- College of Arts and Sciences.
- College of Education.
- College of Engineering.
- College of Home Economics.
- Graduate School.
- Summer School.
- Department of Military Science and Tactics.
- Department of Physical Education and Recreation.
- School of Business Administration.
- School of Dentistry.
- School of Law.
- School of Medicine.
- School of Nursing.
- School of Pharmacy.

The University faculty consists of the President, Deans, the instructional staffs of all the divisions of the University and the Librarians.

The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the division represented. The President is ex-officio a member of all of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

THE EASTERN BRANCH

The Eastern Branch of the University of Maryland is located at Princess Anne, Somerset County. It is maintained for the education of negroes in agriculture and the mechanic arts.

LOCATION

The University of Maryland is located at College Park, in Prince George's County, Maryland, on the line of the Washington branch of the Baltimore and Ohio Railroad, eight miles from Washington and thirty-two miles from Baltimore. At least eight trains a day from each city stop at College Station, thus making the place easily accessible from all parts of the State. Telephone connection is made with the Chesapeake and Potomac lines.

The grounds front on the Baltimore and Washington Boulevard. The suburban town of Hyattsville is two miles to the south, and Laurel is ten miles to the north on the same road. Access to these towns and to Washington may be had by steam and electric railway.

The Schools of Medicine, Pharmacy, Dentistry, Law, and Business Administration of the University are located in Baltimore at the corner of Lombard and Greene Streets.

EQUIPMENT

The University equipment of grounds and buildings in College Park and Baltimore is as follows:

College Park

Grounds. The University grounds at College Park comprise about 300 acres. The site is healthful and attractive. The terrain is varied. A broad rolling campus is surmounted by a commanding hill which overlooks a wide area of surrounding country and ensures excellent drainage. Many of the original forest trees remain. Most of the buildings are located on this eminence. The adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields. The buildings of the Agricultural Experiment Station face the boulevard. The farm of the College of Agriculture contains about 240 acres, and is devoted to fields, gardens, orchards, vineyards, poultry yards, etc., which are used for experimental purposes and demonstration work in agriculture and horticulture.

Plans for the location of future buildings have been worked out with due regard to engineering problems and landscape effects.

The sanitary conditions are excellent, as shown by the absence for many years of epidemics in the student body.

The water supply and sewage disposal are provided by the Washington and Suburban Sanitary Commission.

Buildings. The equipment of buildings comprises about twenty individual structures which provide facilities for the several activities and services carried on at College Park.

Administration and Instruction. This group consists of the following buildings: The Agricultural Building, which accommodates the Executive Offices, the College of Agriculture, the College of Education, the College of Home Economics, the Agricultural and Home Economics Extension Service and the Auditorium; Morrill Hall, which accommodates in part the College of Arts and Sciences; Engineering Building, which houses the College of Engineering; Chemical Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers and agricultural lime; Dairy Building; Horticultural Building; Stock Judging Pavilion; Poultry Buildings.

Experiment Station Group. This group consists of the main building, a large brick structure of the colonial period, housing the office of the Director, the office of the Dean of the Graduate School and laboratories for research in chemistry and plant physiology; other smaller buildings for housing the laboratories for research in soils and for seed testing; an agronomy building; a secondary horticulture building; and barns, farm machinery building, silos and other structures required in agricultural research.

Physical Education. This group consists of the Ritchie Gymnasium, which provides quarters for the Military Department as well as for physical education; and the Byrd Stadium, with a seating capacity of 5,000 and furnished with dressings rooms for contestants, rest rooms for patrons and equipment for receiving and transmitting information concerning contests in progress.

Dormitories. Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 52 women students are provided by three buildings—Gerneaux Hall, a temporary structure and Practice House. The last serves also as a demonstration home for the College of Home Economics.

Service Structures. This group includes the Central Heating and Power Plant; the Infirmary with accommodations for twenty patients, physician's office, operating room and nursing quarters; Dining Hall; laundry.

New Buildings. The new Chemistry Building is now in process of construction and will be ready for occupancy before the opening of the next college year.

An appropriation has been made by the Legislature for a new Library to be erected within the next biennium.

Buildings in Baltimore

The group of buildings located at the corner of Lombard and Greene Streets provides the available housing for the Baltimore division of the University. There are no grounds other than the sites of these buildings. The group comprises the original Medical School building erected in 1814, the University Hospital and the Law School building. Full description of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

Libraries

Libraries are maintained at both the College Park and the Baltimore branches of the University.

The Library at College Park is housed in a separate two-story building. The first floor is devoted to collected material relating to agriculture. The special catalogue cards issued by the United States Department of Agriculture make accessible the large number of State and national bulletins on agriculture and related scientific subjects. The general reference books and the reading room occupy the second floor. The Library is open from 8:15 A. M. to 5:30 P. M. Monday to Friday inclusive; Saturday from 8:15 A. M. to 12:30 P. M.; Sunday afternoon from 2:30 P. M. to 5:30 P. M., and all evenings except Saturday from 6:30 P. M. to 10 P. M.

The Library facilities in Baltimore for the Schools of Medicine, Law and Pharmacy are consolidated and housed in Davidge Hall; those for the School of Dentistry and the courses in Arts and Sciences are temporarily in the building at 6 and 8 Greene Street. The Library hours during the University years are from 9 A. M. to 10 P. M. daily, except Saturday, when it closes at 6 P. M.

The Libraries, including departmental libraries, contain a total of 46,000 bound volumes and large collections of unbound journals. In the two central libraries there are approximately 12,000 United States Government documents, unbound reports and pamphlets.

Through the Inter-library Loan Systems of the Library of Congress, the United States Department of Agriculture and other Government Libraries, the University Library is able to supplement its reference material either by arranging for personal work in those Washington Libraries or by borrowing the books from them.

INCOME

The University is supported by funds appropriated for its use by the State and Federal Governments, fees from students and funds from other sources. The appropriations from the Federal Government are derived from the original Land Grant Act, the second Morrill Act, the Nelson Act, the Smith-Hughes Act, the Smith-Lever Act, the Hatch and Adams Acts, and the Purnell Act.

ENTRANCE

All communications regarding entrance should be addressed to the Registrar, who administers the entrance requirements for all departments of the University. Communications pertaining to entrance to the College Park Colleges should be addressed to the Registrar, University of Maryland, College Park, Maryland; those pertaining to the Baltimore Schools, to the Registrar, University of Maryland, Lombard and Greene Streets, Baltimore, Maryland.

GENERAL INFORMATION

Age of Applicants. No applicant who is less than sixteen years of age will be admitted to any of the Colleges or Schools of the University.

Entrance Preliminaries. Candidates for admission should apply as early as possible to the Registrar for the necessary forms for the transfer of preparatory credits. These forms after they are made out and signed by the high school principal should be returned to the Registrar. It is advisable for prospective students to attend to this preliminary as early as possible, in order to make sure that the units offered are sufficient and acceptable. A candidate who fails to attend to this preliminary may find after reaching the University that he cannot enter. The Registrar is always glad to advise with the students either by correspondence or in person concerning their preparation. The Registrar sends out a general statement of the procedure for new students to follow after they are duly admitted to the University.

Time of Admission. Applicants for admission should plan to enter at the beginning of the school year in September. It is possible to be admitted to certain Colleges at the beginning of either semester, but students can seldom enter the University to advantage except at the opening of the school year.

Registration. Registration for the first semester, except for new students, takes place at the end of the second semester of the preceding year. Students register for the second semester during the week preceding final examinations of the first semester.

Late Registration. Students who do not complete their registration and classification on regular registration days will be required to pay \$3.00 extra on the day following the last registration day and \$2.00 for each additional day thereafter until their registration is completed. The maximum fine is \$9.00.

After seven days from the opening of a semester, fees are imposed for a change of registration.

Students who, for any reason, are more than seven days late in registering must secure permission from the instructors in charge of admission to courses. Such permission must be given in writing to the student's dean before course cards will be issued.

Freshman Registration. Registration of freshmen for the first semester will take place Monday, September 19th, beginning at 9 A. M. All

freshmen are expected to register on this date. Wednesday, September 21st, is reserved for registering students of the three upper classes, and freshmen will not be registered on that day.

Dormitories will be ready for occupancy by freshmen Sunday, September 18th, and the dining hall will be ready to serve supper to freshmen Sunday evening.

A special freshman program is planned covering the time between registration day (September 19th) and the beginning of the instruction schedule (Thursday, September 22nd), the object of which is to complete the organization of freshmen so that they may begin the regular work promptly and effectively on Thursday, the 22nd, and to familiarize them with their new surroundings.

On or about September 1st the Registrar will send all prospective freshmen a detailed statement of this program.

REQUIREMENTS FOR ADMISSION

In general, the requirements for admission to the freshman class are the same as those prescribed for graduation by the approved high schools of Maryland.

High or preparatory school work is evaluated on the basis of "units." A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Two laboratory periods in any science or vocational study are considered as equivalent to one class exercise.

Normally, not more than three units are allowed for four years of English. If, however, a fifth course in English has been taken, an extra unit will be allowed.

Fifteen units, the equivalent of a four-year high school curriculum, are required for admission to all the undergraduate colleges. The additional and special requirements for admission to the professional schools and the Graduate School are given in detail in the chapters devoted to those schools.

Prescribed Units. The following units are required of all candidates for admission:

English.	3
*Mathematics (Algebra to Quadratics, 1 Unit; Plane Geometry, 1 Unit)	2
Science.	1
History.	1
Total Prescribed.	7

*Commercial mathematics will not satisfy the mathematics entrance requirements, but will be accepted as elective subjects.

In addition to these seven prescribed units, the following are required:

- (a) For the Pre-Medical curriculum: two years of foreign language.
- (b) For the Engineering and the Industrial Chemistry curriculums, an additional unit and a half of mathematics, consisting of algebra, completed, one unit; solid geometry, one-half unit.*

Students entering with conditions in prescribed subjects must remove such conditions before enrolling for the second year.

Elective Units. In addition to the prescribed units, a sufficient number of units to make a total of fifteen must be offered from the following elective subjects:

Agriculture	Geology
Astronomy	History
Biology	Home Economics
Botany	Industrial Subjects
Chemistry	Language
Civics	Mathematics
Commercial Subjects	Music
Drawing	Physical Geography
Economics	Physics
English	Physiology
General Science	Zoology

METHODS OF ADMISSION

Students are admitted to the University by certificate from approved preparatory schools, by transfer from other colleges or universities, or by examination.

Admission by Certificate from Approved Preparatory Schools. A candidate for admission by *certificate* must be a *graduate* of an approved secondary school and be recommended by his high school principal. Non-resident applicants must attain the college recommendation grade of their schools.

The following groups of secondary schools are approved:

- (1) Secondary schools approved by the Maryland State Board of Education.
- (2) Secondary schools accredited by the Association of Colleges and Preparatory Schools of the Southern States.
- (3) Secondary schools accredited by the North Central Association of Colleges and Secondary Schools.
- (4) Secondary schools accredited by the State Universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
- (5) Secondary schools approved by the New England College Entrance Certificate Board.

*Students not offering Solid Geometry for admission to the College of Engineering must take this course during the first semester and the regular freshman mathematics course during the second semester and the following summer school.

- (6) High schools and academies registered by the Regents of the University of the State of New York.
- (7) High and preparatory schools on the accredited list of other State Boards of Education where the requirements for graduation are equivalent to the standard set by the Maryland State Board of Education.
- (8) State Normal Schools of Maryland and other State Normal Schools having equal requirements for graduation.

For admission by certificate the applicant should file, with the Registrar of the University as soon as possible after the close of the school year in June, a certificate of recommendation made out on the blank form furnished by the University.

Admission by Transfer from Other Colleges or Universities. A candidate for admission by transfer from another College or University must present evidence that he has maintained a satisfactory and honorable record at the institution which he has attended, in addition to having satisfied the entrance requirements of the University of Maryland.

For admission by transfer the applicant should file with the Registrar as soon as possible after the close of the school year in June a Certificate of Recommendation made out on the blank form furnished by the University. In addition he should have furnished the Registrar, by the institution he has attended, a complete official transcript of his record, together with a statement of honorable dismissal.

Advanced Standing. Advanced standing is granted to students transferring from institutions of collegiate rank for work completed which is equivalent in extent and quality to the work of the University of Maryland, subject to the following provisions:

- (1) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree with less than one year of resident work.
- (2) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree until he has satisfied the full requirements of the curriculum he may elect.
- (3) In case the character of a student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any credit allowed.
- (4) Credit will not be allowed for more than one-fourth of those courses in which the grade is the lowest passing grade of the college attended.

An applicant may request examination for advanced credit in any subject.

Admission by Examination. Candidates who are not eligible for admission by certificate or by transfer will be admitted by presenting evidence of having passed the examinations of either the College Entrance

Examination Board or the New York Regents' Examinations covering work sufficient to meet the entrance requirements.

The University does not give entrance examinations, but accepts certificates of the College Entrance Examination Board and the New York Regents' Examinations.

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted as satisfying the entrance requirements in a subject. These examinations are held at various points once a year, beginning the third Monday in June. Full information regarding these examinations may be obtained from the Secretary of the College Entrance Examination Board, 431 W. 117th Street, New York City.

Credit also will be allowed for examinations conducted by the Regents of the University of the State of New York.

Unclassified Students. Mature students who have had insufficient preparation to pursue any of the four-year curricula may matriculate, with the consent of the Committee on Entrance, for such subjects as they are fitted to take. Such students, however, will be ineligible for degrees.

HEALTH SERVICE

PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the health of the student body, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the College Physician in co-operation with the Military Department. The examination of the women students is conducted by a woman physician especially employed for this purpose in co-operation with the Instructor of Physical Education for Women.

RULES GOVERNING MEDICAL SERVICE

1. All students, paying the fixed University charges, who report at the Infirmary shall be given medical attention and medicine, except for special conditions, such as major operations, eye, ear, nose work, etc.

2. Students residing on the campus when too sick to report at the Infirmary in person will be visited in their rooms by the University Physician or nurse. Except in emergencies, such cases of illness should be reported at the usual hours at the Infirmary.

3. Students residing in fraternity, sorority or boarding houses adjacent to and approved by the University will be treated by the University Physician the same as students living on the campus. When practicable, sickness should be reported before 9 A. M. to the University Physician (phone Berwyn 68) or Infirmary (Berwyn 85-M).

4. Students living at home with relatives or guardians shall not be entitled to medical attention in their homes unless injured in some form of University activity.

5. Students residing in fraternity, sorority or boarding houses may, upon order of the University Physician, be cared for in the Infirmary. Such students shall pay the University an extra charge of \$1.00 per day to cover cost of food and service from the Dining Hall.

6. The University Physician will give medical supervision and treatment to employees of the University (but not their families) who work in the kitchen, dining hall, dormitories and dairy.

7. Members of the faculty, clerical force and students not paying fixed charges shall *not* be entitled to *free* treatment or medical attention by the University Physician or nurse or to have the use of the Infirmary.

REGULATIONS, GRADES, DEGREES

REGULATION OF STUDIES

Course Numbers. Courses for undergraduates are designated by numbers from 1—99; courses for advanced undergraduates and graduates, by numbers, 100—199, and courses for graduates, by numbers, 200—299.

The letter following the number of a course indicates the semester in which it is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of hours' credit for each course is indicated by the arabic numeral in parentheses following the title of the course.

Schedule of Courses. The semester schedules of days, hours and rooms are issued as a separate pamphlet at the beginning of each semester.

Definition of Credit Unit. The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

Number of Hours. The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the Dean of his division.

EXAMINATIONS AND GRADES

Examinations. Examinations at the end of each semester complete the studies pursued to that point.

Grading. The system of grading is uniform in the different departments and divisions of the University.

The following grade symbols are used: A, B, C, D, E, F and I. The first four, A, B, C and D, are passing; E, condition; F, failure; I, incomplete.

Grade "A" denotes superior scholarship; grade "B," good scholarship; grade "C," fair scholarship, and grade "D," poor, but passing scholarship.

A student who receives the grade of "D" in more than one-fourth of the credits required for graduation must take additional courses or repeat courses until he has the required number of credits for a degree, three-fourths of which carry a grade above "D."

A student with a mark of "E" is conditioned. The grade "E" indicates that though the student has not failed in a course, he has not presented sufficient evidence to pass; in the opinion of the instructor his record in the course has been sufficiently good to justify the presumption that he may secure a passing grade by a re-examination or by additional work without repeating the course. The grade "E" cannot be raised to a higher grade than "D."

The mark of "I" (Incomplete) is given only to those students who have a proper excuse for not completing all the requirements of a course. The mark of "I" is not used to signify work of inferior quality. In cases where this grade is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered, or the mark becomes "F."

Work of grade "D," or of any passing grade, cannot be raised to a higher grade except by repeating the course. A student who repeats a course for which he has received credit for work done at this University or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work and examinations. His final grade will be substituted for the grade already recorded, but he will not receive any additional credit for the course.

REPORTS

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

ELIMINATION OF DELINQUENT STUDENTS

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

DEGREES AND CERTIFICATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

CORRECTION

Minimum Charge to All Students.....	\$82.50	\$57.50	\$140.00
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X

The requirements for graduation vary, according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at College Park.

At least three-fourths of the credits required for graduation must be earned with grades of A, B or C.

EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order to reduce the cost of operation, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

EXPENSES AT COLLEGE PARK

The following table gives the minimum amounts which must be paid per semester by all regular resident students at College Park:

	First Semester	Second Semester	Total For Year
Fixed Charges	\$ 57.50	\$ 57.50	\$115.00
Library Fee	5.00	....	5.00
Athletic Fee	15.00	....	15.00
Reserve Fee	5.00	....	5.00
Minimum Charge to All Students....	\$ 67.50	\$ 42.50	\$110.00
Board.	135.00	135.00	270.00
Lodging.	38.00	38.00	76.00
Laundry.	13.50	13.50	27.00
	\$269	\$244.00	\$513.00

In addition to the above regular charges the following special fees will be charged as indicated:

\$5.00 matriculation fee to students registering for the first time.

\$62.50 per semester to non-resident students.

125.00 per semester to non-resident students taking pre-medical work.

\$10.00 diploma fee.

\$5.00 certificate fee.

\$1.00 condition examination fee.

1.00 fee for change in registration after first week.
 1.00 fee for failure to file schedule card in Registrar's office
 within one week after opening of semester.

Late Registration Fee. Students who do not complete their registration and classification on regular registration days will be required to pay \$3.00 extra on the day following the last registration day, and \$2.00 for each additional day thereafter until their registration is completed. The maximum fee is \$9.00.

Absence Fee. In cases of absence 24 hours before, or 24 hours after classes close or begin, respectively, for a vacation, a student will be penalized by the payment of a special fee of \$3.00 for each class missed.

Graduate Fees. The fees paid by graduate students are as follows:

Matriculation fee	\$10.00
Per semester credit hour.....	1.50
Diploma fee	10.00

EXPLANATIONS

The Fixed Charges made to all students are a part of the overhead expenses not provided for by the State, such as laboratory supplies and service, infirmary and physical training costs and other general expense.

The Board, Lodging and Laundry charge may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

The Library Fee is designed to cover in part the cost of wear and tear on library books.

The Reserve Fee will be returned at the close of the year, less any damage charges. Students who have occupied rooms without first signing the room register kept by the Dormitory Manager at his office in Room 121, Silvester Hall, or who have moved from rooms assigned to them, or who have removed articles of furniture without his approval will forfeit the reserve fee. Any damages or other charges which may be shown on their clearance slips will be collected in addition to this forfeiture.

The Athletic Fee constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Board for disbursement.

DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the time of their registration their parents or guardians have been residents of this State or the District of Columbia for at least one year.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this State for at least one year.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless his parents or guardians move to and become legal residents of this State.

MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Board and lodging may be obtained at boarding houses or in private families, if desired.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at nearby lunch rooms.

The costs of books and supplies and personal needs will vary according to the tastes and habits of the individual student. Books and supplies average about \$40.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

DORMITORY RULES AND REGULATIONS

The office of the Dormitory Manager is located in Room 121, Silvester Hall. Each dormitory student after registering will proceed immediately to the Dormitory Manager's office to receive his room key and take possession of his room. Instructions regarding the rules for the dormitories will be given to the student at this time.

All freshmen, except those who live at home, are required to room in the dormitories and board at the University dining hall.

All dormitory property assigned to the individual student will be charged against him, and the parent or guardian must assume responsibility for its possession without destruction other than that which may result from ordinary wear and tear.

All students assigned to dormitories are required to provide themselves with sufficient single blankets, at least two pairs of single sheets, three pillow cases, six towels, a pillow, a laundry bag, a broom and a waste basket.

Room Reservations. All students who are to room in the dormitories must register their names and selection of rooms with the Dormitory Manager and deposit \$5.00 with the Cashier as a reserve fee. This fee will be deducted from the first semester charges when the student registers; if he fails to register, the fee will be forfeited. Reservations may be made at any time during the closing month of the school year by students already in the University. Students who are applying for admission to the University should signify their desire to reserve a room, and accompany this request with a remittance of \$5.00.

Keys. Students who withdraw from the dormitories at any time and fail to surrender their keys to the Dormitory Manager immediately will be subject to a charge of \$1.00.

AUTOMOBILES

No student, while in residence at the College Park branch of the University, whether living in a University dormitory, fraternity house, or

boarding house, will be permitted to have an automobile without an authorization by the parent, giving satisfactory reasons why the student should keep a car. A parent desiring to give such authorization will secure from the President an automobile authorization blank form. This form, when filled out by the parent and approved by the President of the University, constitutes the student's authorization and is retained in the University files.

WITHDRAWALS

Students registering for the dormitories and dining hall must continue for the year, as contracts for faculty and other service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal slip, which must be approved by the Dean and presented to the Registrar at least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. Withdrawal slips must bear the approval of the President and the Financial Secretary before being presented to the Cashier for refund.

REFUNDS

For withdrawal within five days full refund of fixed charges, library fee, athletic fee, and reserve fee, with a deduction of \$5.00 to cover cost of registration. All refunds for board, lodging, and laundry will be pro-rated.

After five days, and until November 1, refunds on all charges will be pro-rated, with a deduction of \$5.00 to cover cost of registration.

After November 1, refunds will be granted for board and laundry only, amounts to be pro-rated.

No refunds will be made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

No student will be given cash for any part of his or her refund until all outstanding checks have been honored by the bank on which they are drawn.

EXPENSES AT BALTIMORE

The fees and expenses for the schools located in Baltimore are:

	Matriculation	Tuition		Laboratory	Graduation
		Resident	Non-Resident		
Medicine	\$10.00 (once only)	\$250.00	\$350.00	\$20.00 yr.	\$10.00
*Dentistry	10.00 (once only)	200.00	250.00	20.00 yr.	10.00
Pharmacy	10.00 (once only)	200.00	250.00	20.00 yr.	10.00
Law (night)	10.00 (once only)	150.00	200.00	....	10.00
(day)	10.00 (once only)	200.00	250.00	....	10.00

Applicants for admission to any of the schools are charged a record investigation fee of \$2.00.

*Students are required to pay, once only, a dissecting fee of \$15.00.
Note—Late registration fee, \$5.00.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect to earn enough money to pay all of his expenses. The amounts vary from nearly nothing to one-half or three-fourths of all the required funds for a college education.

Generally the first year is the hardest for students desiring employment. After the student has demonstrated that he is worthy and capable, there is much less difficulty finding employment.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid students who desire employment. The nearby towns and the University are canvassed and a list of available positions is placed at the disposal of the students.

HONORS AND AWARDS

SCHOLARSHIP HONORS AND AWARDS

Chemical Alumnae Scholarship. The Chemical Alumnae of the University of Maryland gives a scholarship to the boy or girl in the State writing the best essay, as a result of the National Prize Essay Contest, of the American Chemical Society.

The Sigma Delta Sorority offers annually a hundred dollars (\$100.00) loan, without interest, to any woman student registered in the University of Maryland and selected by the Scholarship Committee—the said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

Scholarship Honors. Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half.

The Goddard Medal. The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County making the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to that freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal. The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

Dinah Berman Memorial Medal. The Dinah Berman Memorial Medal is awarded annually to that sophomore who has attained the highest

scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

Interfraternity Scholastic Trophy. The Delta Mu Fraternity has presented to the University a silver trophy which is awarded annually to that fraternity which had the highest average in scholarship for the preceding scholastic year. It becomes the permanent property of the fraternity which wins it three times.

PUBLIC SPEAKING AWARDS

President's Cup for Debate. An annual debate is held each year in January between the Poe and New Mercer Literary Societies for the "President's Cup," given by Dr. H. J. Patterson.

Alumni Medal for Debate. A gold medal is awarded by the Alumni Association each year to the best debater in the University, the test being a debate between picked teams from the two literary societies.

Public Speaking Prize. A prize of \$25.00 in gold is given annually by Mr. W. D. Porter, of Hyattsville, Maryland, to be awarded to that student in the University who makes most improvement in the ability "to stand and think and to so express his thoughts while standing as to transmit them to his fellow-men accurately and in a common-sense way."

The Oratorical Association of Maryland Colleges, consisting of Washington College, Western Maryland College, St. John's College and University of Maryland, offers each year gold medals for first and second places in an oratorical contest that is held between representatives of the four institutions.

OTHER MEDALS AND PRIZES

Athletics. The class of 1908 offers annually to "the man who typifies the best in college athletics" a gold medal. The medal is given in honor of former President R. W. Silvester, and is known as "The Silvester Medal for Excellence in Athletics."

Military Medal. The class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best-drilled soldier.

Company Sword. The class of 1897 awards annually to the captain of the best-drilled company of the University battalion a silver-mounted sword.

Citizenship Prize. A gold medal is presented annually by H. C. Byrd, a graduate of the class of 1908, to the member of the senior class who, during his collegiate career, has nearest typified the model citizen, and who has done most for the general advancement of the interests of the University.

Citizenship Prize for Women. The Citizenship Prize is offered by Mrs. Albert F. Woods to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interest of the University.

STUDENT ACTIVITIES

The following description of student activities covers the student activities of the undergraduate divisions at College Park. The description of student activities in the Baltimore divisions is included in the appropriate chapters in Section II.

GOVERNMENT

Regulation of Student Activities. The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities, except those which are controlled by a special board or faculty committee, are under the supervision of the Committee on Student Affairs, subject to the approval of the President. Such organizations are formed only with the consent of the Committee on Student Affairs and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

The "Students' Handbook," issued annually and distributed to the students in the fall, contains full information in regard to student activities as well as in regard to academic regulations. Some of the more important items are given here.

Eligibility to Represent the University. Only students in good standing are eligible to represent the University in extra-curricular contests. No student while on probation may represent the University in such events as athletic contests, glee club concerts, dramatic performances and debates.

Discipline. In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are eliminated. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Student Government. The General Students' Assembly consists of all the students and is the instrument for student government. It operates under a constitution. Its officers are a President, Vice-President and Secretary and an Executive Council representative of the several college classes.

The Students' Assembly meets the second Wednesday of each month at 11:20 o'clock in the Auditorium for the transaction of business which concerns the whole student body. On alternate Wednesdays a program is arranged by the officers with the aid of the Department of Public

Speaking. The Students' Executive Council, with the aid of the Committee on Student Affairs, which acts as an advisory board to the Council, performs the executive duties incident to managing student affairs.

Women Students' Government Association is an organization comprising all the women students, for the management of all affairs concerning the women students exclusively. It operates under a constitution. Its officers are the same as those of the General Students' Assembly. Its Executive Council has the advisory co-operation of the Dean of Women.

SOCIETIES

Honorary Fraternities. There are seven honorary fraternities and societies in the University at College Park organized to uphold scholastic and cultural standards in their respective fields. These are: Phi Kappa Phi, a national honorary fraternity open to honor students in all branches of learning; Alpha Zeta, a national honorary agricultural fraternity; Phi Mu, a local honorary engineering fraternity; Phi Chi Alpha, a local honorary chemical fraternity; Sigma Delta Phi, a local honorary Spanish fraternity, Women's Senior Honorary Society, and Omicron Delta Kappa, men's national honor society.

Fraternities and Sororities. Six national fraternities and one national sorority have chapters at College Park. These are: Kappa Alpha, Sigma Nu, Sigma Phi Sigma, Phi Alpha, Phi Sigma Kappa, Delta Sigma Phi (fraternities), and Alpha Omicron Pi (sorority). In addition there are five local fraternities and two local sororities: Nu Sigma Omicron, Delta Psi Omega, Delta Mu, Sigma Tau Omega, Alpha Gamma (fraternities); Sigma Delta, Kappa Xi (sororities).

The relations of these organizations to each other and to the University are governed by the regulations of the Interfraternity Council (men) and the Panhellenic Council (women), under the general supervision of the Committee on Student Affairs.

Miscellaneous Clubs and Societies. Many clubs and societies, with literary, scientific, social and other special objectives, are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Agricultural Club, Agronomy Society, Animal Husbandry Society, Authorship Club, Co-Ed Speakers' Club, Economics Club, Engineering Society, Home Economics Club, Horticultural Society, Latin-American Club, Le Cercle Francais, Live Stock Club, Maryland Chemical Club, New Mercer Literary Society, Poe Literary Society, Calvert Club, Baltimore City Club, Chess and Checker Club, District of Columbia Club, Gamma Alpha Phi Fraternity (Masonic), Keystone Club, Masque and Bauble Club, Men's Rifle Club, Old Dominion Club, Rossbourg Club

(formal dances), Scabbard and Blade, Women's Rifle Club, Women's Athletic Association, Girls' "M" Club, Alpha Upsilon Chi Club.

Student Grange. The Student Grange is a chapter of the national fraternity. With the exception of two faculty advisers, the Student Grange membership is made up entirely from the student body. New members are elected by ballot when they have proven their fitness for the organization.

The general purposes of the Student Grange are to furnish a means through which students keep in touch with State and national problems of agricultural, economic or general educational nature; to gain experience in putting into practice any parliamentary rules; to learn the meaning of leadership and to learn how to assume leadership that aids in the ultimate task of serving in one's community.

MUSICAL ORGANIZATIONS

Five musical organizations are maintained in connection with the Department of Music.

Chorus. Membership in the Chorus is open to all students, and to persons residing in the community. Oratorios and standard part-songs are studied. Rehearsals are held weekly. The Chorus presents an annual festival of music in May.

Glee Club. A Glee Club, of limited membership, is recruited from the best vocal talent among the men of the University. Admission is gained through tests or "try-outs," conducted at the beginning of the school year. The club holds three rehearsals a week. Public concerts are given.

Opera Club. The "Maryland Opera Club" was established in 1923, and gave its first performance in the spring of 1924. Its object is to foster and promote music in connection with dramatic art, and to develop and direct musical talent of students in the University. One or more public performances are given each year.

Symphony Orchestra. It is the purpose of the Symphony Orchestra to study the classics. Works of the standard symphonists from Hayden and Mozart to Wagner and the modern composers are used. Students are eligible for membership who play orchestral instruments. At least one rehearsal of two hours' duration is held each week, and all players are expected to take part in public performances.

Military Band. This organization, of limited membership, is a part of the military organization of the University, and is subject to the restrictions and discipline of the Department of Military Science and Tactics.

RELIGIOUS INFLUENCES

Religious Work Council. The Religious Work Council, comprising the President of the University, acting as chairman, all Student Pastors officially appointed by the Churches for work with the students of their

respective faiths, and representatives of the religious organizations of the students, focalizes, reviews and stimulates the religious thought and activity of the student body. This Council has an executive secretary with an office in the Agricultural Building, who is daily at the service of the students and the churches.

Every assembly of the University is opened with religious exercises conducted by one of the Student Pastors or other clergymen secured for the purpose.

While there is no interference with anyone's religion, religion itself is recognized, and every possible provision made that the student may keep in contact with the church of his choice.

The Christian Associations. The Young Men's Christian Association and the Young Women's Christian Association serve primarily as agencies for co-ordinating and directing the religious activities of the men and women students, respectively. In addition, they perform other important functions, such as welcoming new students, assisting in obtaining employment for worthy students and promoting morale and good-fellowship in the student body. The two Associations, in co-operation with the Committee on Student Affairs, publish and distribute free of charge the Students' Handbook to each student at the beginning of the scholastic year. This handbook contains detailed information in regard to registration, academic regulations and student activities. The Y. M. C. A. maintains a secretary, who divides his time between the College Park and Baltimore branches of the University.

The Program Committees of the two Associations provide organized programs of religious study running through the college year.

Bible Classes are conducted by the Christian Associations.

The Discussion Group, organized and conducted by the students, meets Sunday evening for the discussion of important religious, social and political questions, both national and international.

The Episcopal Club. The Episcopal Club is an organization of the Episcopal students (both men and women) and their friends, banded together for mutual fellowship and Christian service. It is a duly recognized unit of the National Student Council of the Protestant Episcopal Church.

STUDENT PUBLICATIONS

The two student publications are conducted under the supervision of the Faculty Committee on Student Publications.

The Diamondback. A weekly, five-column newspaper, the Diamondback, is published by the students. This publication summarizes the University news, and provides a medium for discussion of matters of interest to the student body and the faculty.

The Reveille is the student annual published by the junior class. It is a mirror of student activities and opinions.

ALUMNI ORGANIZATION

The University has no general alumni association. The alumni are divided into several organizations, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs.

The different alumni units represent the Medical School, the Pharmacy School, the Dental School, the Law School, the School of Nursing, the School of Business Administration. One unit represents the group of colleges at College Park.

The Alumni Council is made up of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elects twelve representatives. W. P. Cole, Jr., of Towson, Md., a graduate of the Engineering College and also a graduate of the Law School, is President of the Alumni Council.

SECTION II

ADMINISTRATIVE DIVISIONS

COLLEGE OF AGRICULTURE

HARRY J. PATTERSON, *Dean*

Agriculture is the primary pursuit of the human race, and permanent prosperity is in direct proportion to the producing capacity of the land. Land-Grant Colleges were founded to foster the teaching of scientific agriculture. The primary aim of the College of Agriculture of the University of Maryland is to teach the best and most practical methods of farm production, the economics of marketing and distribution, and methods of improving the economic and social position of the farmer. Agriculture is constantly changing; no cropping system can be worked out once and for all time; new as well as old pests and diseases must be constantly combated; better feeding and breeding of live stock and more efficient marketing methods must be substituted for the old and inefficient methods if agriculture is to maintain its importance with the other industries. Above all, agriculture must be made profitable to the tiller of the soil and must be established as a paying business for those who engage in it as well as for town and city dwellers.

The curricula of the College of Agriculture are planned to give the student thorough and practical instruction in agriculture and related sciences, and at the same time afford an opportunity to specialize along the lines in which he is particularly interested. Likewise, instruction is given which will prepare students for teaching positions in agriculture, for governmental investigation and experimental work, for positions as county agents, farm bureau leaders, farm supervisors, as well as for farming.

Departments

The College of Agriculture includes the following departments: Agricultural Economics; Agronomy (including Forage Crops, Grain Crops, Genetics); Animal Husbandry; Bacteriology; Botany; Dairy Husbandry; Entomology and Bee Culture; Farm Forestry; Farm Management; Farm Mechanics; Horticulture (including Pomology, Vegetable Gardening, Landscape Gardening and Floriculture); Plant Pathology; Plant Physiology and Bio-chemistry; Poultry Husbandry; Soils; Veterinary Medicine.

Admission

The requirements for admission are the same as for other colleges and schools. See Section I, "Entrance."

Requirements for Graduation

One hundred and thirty-four semester hours are required for graduation. The prescribed work is the same for all freshmen and sophomores (except for those specializing in Floriculture, Landscape Gardening and Entomology); thereafter the work required varies according to the major and minor subjects pursued by the students.

Major Subject

Before the beginning of the third year the student chooses a department in which he will do his major work. After choosing his major subject some member of the department (appointed by the head of the department) will become the student's advisor in the selection of courses. The adviser may designate a minor subject if he deems it necessary.

The minimum requirements for a major in one department are fourteen semester hours, and the maximum hours permitted to count toward a degree are thirty-five semester hours.

Farm Practice

Students without farm experience do not, as a rule, secure full benefit from any of the agricultural courses. A committee has been appointed for the purpose of assisting all students coming to the college without farm training to obtain a fair knowledge of actual farm practice. Some time during the year the committee will examine all members of the freshman class to determine whether or not their experience satisfies the farm practice requirements. Those not able to pass this examination will be required to spend at least three months on a farm designated or approved by the committee. If the student has had no experience whatsoever before entering college, he may be required to spend six to nine months on a farm. The committee reserves the right also to call on all students so placed for written reports showing the experience gained while on these farms.

Fellowships

A limited number of graduate fellowships which carry remuneration of \$500 to \$1,000 yearly are available to graduate students. Students who hold these fellowships spend a portion of their time assisting in classes and laboratories. The rest of the time is used for original investigation or assigned study. (See Graduate School.)

CURRICULA IN AGRICULTURE

All students registered in the College of Agriculture take the same work in the freshman and sophomore years, except those who expect to

specialize in bacteriology, botany, landscape gardening, floriculture and entomology. At the end of the sophomore year they may elect to specialize along the lines in which they are particularly interested.

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Gen'l Chem. and Qual. Analysis (Chem. 1).....	4	4	
*General Zoology (Zool. 1)	4		4
*General Botany (Bot. 1)	—	4	
Composition and Rhetoric (Eng. 1)	3	3	
Public Speaking (P. S. 1 and 2)	1	1	
Basic R. O. T. C. (M. I. 1)	1	1	
(Elect one of the following groups)			
Group A—			
General Animal Husbandry (A. H. 1).....	3	—	
Principles of Vegetable Culture (Hort. 11).....	—	3	
Group B—			
Language	3	3	
Group C—			
Mathematics	3	3	
Group D—			
Elements of Social Science (Soc. Sci. 1).....	3	3	
<i>Sophomore Year</i>			
Elements of Organic Chemistry (Chem. 12).....	4	—	
Geology (Geol. 1)	3	—	
Principles of Soil Management (Soils 1).....	—	3	
Elementary Pomology (Hort. 1).....	3	—	
Field Crop Production (Agron. 1-2).....	3	3	
Feeds and Feeding (A. H. 2).....	3	—	
Farm Dairying (D. H. 1).....	—	3	
Basic R. O. T. C. (M. I. 2).....	2	2	
Agricultural Chemical Analysis		3	
† Elective		3	

AGRONOMY

The curriculum in agronomy aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he can register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, investigational work in the State or Federal Experiment Stations, or county agent work.

* Offered each semester.

† Students should elect Principles of Economics (Econ. 5 A), or Poultry (P. H. 101 s), or General Entomology (Ent. 1 s), or General Bacteriology (Bact. 1 s).

The Agronomy Department has a large, well-equipped laboratory in the new Agricultural Building and a greenhouse for student use, besides free access to the Experiment Station fields and equipment.

<i>Junior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Genetics (Agron. 101)	3	—	
Grain and Hay Judging (Agron. 4).....	1	—	
Grading Farm Crops (Agron. 3).....	—	2	
General Bacteriology (Bact. 1).....	3	—	
Soil Micro-Biology (Soils 7).....	—	3	
Expository Writing (Eng. 5-6).....	2	2	
Plant Physiology (Plt. Phy. 1).....	4	—	
Agricultural Economics (A. E. 1).....	3	—	
Electives	2	10	
<i>Senior Year</i>			
Crop Breeding (Agron. 103).....	2	—	
Advanced Genetics (Agron. 102).....	3	—	
Methods of Crop Investigation (Agron. 121).....	—	2	
Cropping Systems and Methods (Agron. 120).....	—	2	
Soil Survey and Classification (Soils 5).....	3	—	
Farm Drainage (F. Mech. 107).....	—	2	
Farm Machinery (F. Mech. 101).....	3	—	
Farm Forestry (For. 1).....	—	3	
Farm Management (F. M. 2).....	4	—	
Seminar (Agron. 129).....	1	1	
Electives	1	7	

AGRICULTURAL EDUCATION

The objectives of the curriculum in Agricultural Education are the teaching of secondary vocational agriculture, the work of the county agents, and allied lines of the rural educational service.

(For special requirements and curriculum see page 96, College of Education.)

ANIMAL HUSBANDRY

The courses in animal husbandry have been developed with the idea of teaching the essential principles underlying the breeding, feeding, development and management of livestock, together with the economics of the livestock industry.

The curriculum in animal husbandry is so planned as to allow plenty of latitude in the selection of courses outside of the department, thus giving the student a broad, fundamental training and fitting him to become the owner or superintendent of general or special livestock farms.

Opportunity for specialization is offered to those who may desire to become instructors or investigators in the field of animal husbandry.

Some livestock are maintained at the university. In addition, there are available, for use in instruction, the herds of livestock owned by the

Federal Bureau of Animal Industry at Beltsville, Maryland. Through the courtesy of Maryland breeders, some private herds are also available for inspection and instruction.

<i>Junior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Expository Writing (Eng. 5-6).....		2	2
General Bacteriology (Bact. 1-2).....		3	3
Agricultural Economics (A. E. 1).....		3	—
Principles of Breeding (A. H. 3).....		—	3
Swine Production (A. H. 4).....		—	3
Horse and Mule Production (A. H. 6).....		—	2
Anatomy Physiology (V. M. 1).....		3	—
Genetics (Agron. 10).....		3	—
Electives		3	4
<i>Senior Year</i>			
Farm Management (F. M. 2).....		4	—
Sheep Production (A. H. 7).....		—	3
Farm Machinery (F. Mech. 101).....		3	—
Animal Hygiene (V. M. 102).....		—	3
Meat and Meat Products (A. H. 8).....		2	—
Farm Drainage (F. Mech. 107).....		—	2
Physiological Chemistry (Chem. 119).....		4	—
Seminar (A. H. 112).....		1	1
Electives		3	8

BACTERIOLOGY

The present organization of this department was brought about with two main purposes in view. The first is to give all the students of the university an opportunity to obtain a general knowledge of the subject. This is of prime importance, as bacteriology is a basic subject and is of as much fundamental importance as physics or chemistry. The second purpose, and the one for which this curriculum was designed, is to fit students for positions along bacteriological lines. This includes dairy bacteriologists and inspectors; soils bacteriologists; federal, state and municipal bacteriologists for public health positions; research positions; commercial positions, etc. At present, the demand for individuals qualified for this work is much greater than the supply. This condition is likely to exist for some time.

<i>Sophomore Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Elements of Organic Chemistry (Chem. 12).....		4	—
Agricultural Chemical Analysis (Chem. 13).....		—	3
*Physics (Phys. 3) or Principles of Economics (Econ. 5A).....		—	3
General Bacteriology (Bact. 1 and 2).....		3	3
R. O. T. C. (M. I. 102).....		2	2
Electives		8	6

* Only those students who are excused from Physics will take Economics.

		<i>Semester</i>	
<i>Junior Year</i>		<i>I</i>	<i>II</i>
Dairy Bacteriology (Bact. 101).....		3	3
Expository Writing (Eng. 5 and 6).....		2	2
Advanced Bacteriology (Bact. 102).....		—	3
Electives		12	10
<i>Senior Year</i>			
Advanced Bacteriology (Bact. 102).....		3	3
Physiological Chemistry (Chem. 104).....		4	—
Genetics (Agron. 101).....		3	—
Agricultural Statistics (Agron. 122).....		2	—
Hematology (Bact. 103).....		—	2
Seminar (Bact. 110).....		1	1
Electives		4	11

BOTANY

The courses listed for the curriculum in botany make a kind of skeleton of essentials to which the student adds the individual requirements to make a complete four-year course. No electives are permitted in the freshman year, but thereafter the leeway increases to the senior year, where half of the courses are elected or selected to fit the individual needs of the student. This leeway is thought to be important because all students do not have the same ends in view. They may wish to prepare to be teachers, investigators in state or government experiment stations, inspectors in the field, or for any other vocations which botanists follow. The curriculum as outlined lays the foundation for graduate work leading to higher degrees.

		<i>Semester</i>	
<i>Freshman Year</i>		<i>I</i>	<i>II</i>
General Chemistry and Qualitative Analysis (Chem. 1)....		4	4
General Botany (Bot. 2-3).....		4	4
Composition and Rhetoric (Eng. 1).....		3	3
Public Speaking (P. S. 1-2).....		1	1
Modern Language (French or German).....		4	4
Basic R. O. T. C. (M. I. 1).....		1	1
		—	—
		17	17
<i>Sophomore Year</i>			
Organic Chemistry (Chem. 10).....		4	—
Expository Writing (Eng. 5-6).....		2	2
Mathematics (Math. 1-2).....		3	3
Zoology (Zool. 1).....		—	4
Modern Language		3	3
Mycology (Bot. 5).....		—	3
Basic R. O. T. C. (M. I. 2).....		2	2
Elective		3	—
		—	—
		17	17

<i>Junior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Physics (Phys. 1).....	4	4	
Plant Pathology (Plt. Path. 1).....	3	—	
Plant Physiology (Plt. Phy. 1).....	4	—	
Plant Ecology (Plt. Phy. 2).....	—	3	
Systemtic Botany (Bot. 4).....	—	2	
Genetics (Agron. 101).....	3	—	
Elective	3	8	
	—	—	
<i>Senior Year</i>		17	17
Group A—			
(The Morphology group)			
Plant Anatomy (Bot. 101).....	3	—	
Methods in Plant Histology (Bot. 102).....	—	3	
General Bacteriology (Bact. 1-2).....	3	3	
Advanced Mycology (Bot. 104).....	3	—	
Advanced Taxonomy (Bot. 103).....	—	3	
Elective	8	8	
	—	—	
	17	17	
Group B—			
(The Physiology group)			
Advanced Plant Physiology (Plt. Phy. 101).....	2	2	
Plant Anatomy (Bot. 101).....	3	—	
General Bacteriology (Bact. 1-2).....	3	3	
Elective	9	12	
	—	—	
	17	17	
Group C—			
(The Pathology group)			
Disease of Fruits (Plt. Path. 101).....	4	—	
Diseases of Garden and Field Crops (Plt. Path. 102).....	—	4	
Plant Anatomy (Bot. 101).....	3	—	
Methods in Plant Histology (Bot. 102).....	—	3	
Advanced Mycology	3	—	
Advanced Taxonomy	—	3	
*General Bacteriology (Bact. 1 and 2).....	3	3	
Elective	4	4	
	—	—	
	17	17	

DAIRY AND ANIMAL HUSBANDRY GROUP

Dairy Husbandry

The Department of Dairy Husbandry offers courses in two major lines, namely, dairy production and dairy manufacture. The curriculum in each of these lines is so arranged as to give to the student an intimate knowl-

* If possible Bacteriology will be taken in Junior year.

edge of the science and facility in the art of dairy husbandry practices. The dairy production option is so organized as to meet the specific requirements of the students who are especially interested in the care, feeding, breeding, management and improvement of dairy cattle and in the production and sale of market milk.

The option in Dairy Manufactures is planned to meet the particular demands of students who are especially interested in the processing and distribution of milk, dairy plant operation and in the manufacture and sale of butter, cheese, ice-cream and other milk products.

The dairy herd and the dairy manufacture and plant laboratories are available to students for instruction and for research. Excellent opportunity is, therefore, afforded to both advanced undergraduate and graduate students for original investigation and research. Graduates in the courses in dairy husbandry should be well qualified to become managers of dairy farms, teachers, investigators in the State and Federal Agricultural Experiment Stations, or to enter the field of commercial dairying.

DAIRY HUSBANDRY

<i>Dairy Manufacture</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
<i>Junior Year</i>			
Expository Writing (Eng. 5-6).....	2	2	
Agricultural Economics (A. E. 1).....	3	—	
General Bacteriology (Bact. 1).....	3	—	
Accounting (Econ. 120).....	3	3	
Dairy Chemistry (Chem. 121).....	—	4	
Dairy Manufacture (D. H. 4) or.....	3	3	
Market Milk (D. H. 5).....	4	—	
Electives	2-3	5-8	
<i>Senior Year</i>			
Market Milk (D. H. 5) or.....	4	—	
Dairy Products Manufacturing (D. H. 4).....	3	3	
Dairy Bacteriology (Bact. 101).....	3	—	
Dairy Plant Technique (D. H. 7).....	—	2	
Marketing of Farm Products (A. E. 102).....	—	3	
Co-operation in Agriculture (A. E. 103).....	3	—	
Seminar	1	1	
Electives	6-7	8-11	

Dairy Production

<i>Junior Year</i>			
Expository Writing (Eng. 5-6).....	2	2	
Agricultural Economics (A. E. 1).....	3	—	
General Bacteriology (Bact. 1).....	3	—	
Dairy Production (D. H. 2).....	3	—	
Principles of Breeding (A. H. 3).....	—	3	
Advanced Dairy Cattle Judging (D. H. 3).....	—	1	
Genetics (Agron. 110).....	3	—	
Farm Drainage (F. Mech. 107).....	—	2	
Electives	3	9	

<i>Senior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Market Milk (D. H. 5).....	4	—	—
Dairy Bacteriology (Bact. 101).....	3	—	—
Animal Hygiene (V. M. 101).....	—	—	3
Farm Management (F. M. 2).....	4	—	—
Seminar (D. H. 102).....	1	—	1
Electives	5	1	13

ENTOMOLOGY

This department is concerned with the teaching of entomology to all agricultural students as a basis for future work in pest control and in the preparation of technically trained entomologists.

The success of the farmer and particularly the fruit grower is in a large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops each year. Successful methods of control are emphasized in the economic courses.

There is an ever-increasing demand for trained entomologists. The entomological work of the Experiment Station, the Extension Service, the College of Agriculture and the office of the State Entomologist being in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on station projects already under way.

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
General Chemistry and Qualitative Analysis (Chem. 1).....	4	4	4
General Zoology (Zool. 1).....	4	—	—
General Botany (Bot. 1).....	—	—	4
General Entomology (Ent. 1).....	—	—	3
Composition and Rhetoric (Eng. 1).....	3	3	3
French (1) or German (1).....	4	4	4
Basic R. O. T. C. (M. I. 1).....	1	1	1
<i>Sophomore Year</i>			
Physics (Phys. 1).....	4	4	4
Elements of Organic Chemistry (Chem. 12).....	4	—	—
Agricultural Chemical Analysis (Chem. 13).....	—	—	3
Expository Writing (Eng. 5-6).....	2	2	2
French (2) or German (2).....	3	3	3
Insect Morphology (Ent. 2).....	3	—	—
Systematic Entomology (Ent. 3).....	—	2	2
Basic R. O. T. C. (M. I. 2).....	2	2	2
<i>Junior Year</i>			
Economic Entomology (Ent. 101).....	3	3	3
Economic Entomology (Ent. 102).....	2	2	2
Economic Zoology (Zool. 4).....	—	1	1
General Bacteriology (Bact. 1-2).....	3	3	3
Electives	10	9	9

<i>Senior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Insect Pests—Special Groups (Ent. 104).....	4	4	4
Thesis (Ent. 4).....	2	2	2
Seminar (Ent. 103).....	1	1	1
Electives	5-7	5-7	5-7

Electives in Botany, particularly Plant Physiology and Plant Pathology, are urged as especially desirable for most students specializing in entomology.

FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

In this department are grouped courses in farm management and agricultural economics.

Farm management has been defined as the business of the individual farmer to organize his business so as to produce the greatest continuous profit. This can be done, however, only when the organization is in accordance with the broader principles of agricultural economics. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to co-ordinate them into the most efficient farm organization. Farming is a business and as such demands for its successful conduct the use of business methods. As a prerequisite to the technical farm management course there is offered a course in farm accounting. This course is not elaborate, but is designed to meet the need for a simple yet accurate system of farm business records.

The aim of the farm management course is to assist the student to perceive the just relationship of the several factors of production and disposition as applicable to local conditions and to develop in him executive and administrative capacity.

Agricultural economics considers the fundamental principles underlying production, distribution and consumption, more especially as they bear upon agricultural conditions. Land, labor and capital are considered in their relationship to agriculture.

The farmer's work does not end with the production of crops or animal products. More and more it is evident that economical distribution is as important a factor in farming as is economical production.

Students well trained in farm management and agricultural economics are in demand for county agent work, farm bureau work, experiment station or United States Government investigation and college or secondary school teaching.

<i>Junior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Agricultural Economics (A. E. 1).....	3	—	—
Marketing of Farm Products (A. E. 102).....	—	—	3
Farm Accounting (F. M. 1).....	—	—	3
Business Law (Econ. 118).....	3	3	3
Grading Farm Crops (Agron. 3).....	—	—	2
Business Organization (Econ. 115).....	3	—	—
Agricultural Statistics (Agron. 122-123).....	2	2	2
Expository Writing (Eng. 5-6).....	2	2	2
Electives	6	4	4

Senior Year	Semester	
	I	II
Co-operation in Agriculture (A. E. 103).....	3	—
Transportation of Farm Products (A. E. 101).....	—	3
Seminar (A. E. 105).....	1-3	1-3
Farm Management (F. M. 2).....	4	—
Farm Machinery (F. Mech. 101).....	3	—
Corporation Finance (Econ. 116).....	—	3
Rural Sociology and Educational Leadership (Ed. 122).....	—	3
Public Finance (Econ. 111).....	—	3
Electives	5-7	4-6

FARM MECHANICS

The Department of Farm Mechanics is organized to offer students of agriculture training in those branches of agriculture which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to replace hand labor, requiring the use of many men, by large machines which do the work of many men yet require only one man for their operation. In many cases horses are being replaced by tractors to supply the motive force for these machines. Trucks, automobiles and stationary engines are found on almost every farm. It is highly advisable that the student of any branch of agriculture have a working knowledge of the construction and adjustments of these machines.

About one-sixth of the total value of farms is invested in the buildings. The study of the design of the various buildings, from the standpoint of convenience, economy and appearance, is, therefore, important.

The study of drainage includes the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and a study of the Maryland drainage laws.

GENERAL AGRICULTURE

Those who do not care to specialize in any particular phase of agriculture will pursue the following curriculum:

Junior Year	Semester	
	I	II
Diseases of Plants (Plt. Path. 1).....	3	—
Plant Physiology (Plt. Phy. 1).....	4	—
General Bacteriology (Bact. 1).....	3	—
Expository Writing (Eng. 5-6).....	2	2
Poultry (P. 101).....	—	3
Genetics (Agron. 101).....	3	—
Farm Accounting (F. M. 1).....	—	3
Principles of Breeding (A. H. 3).....	—	3
Agricultural Economics (A. E. 1).....	3	—
Electives	—	6

Senior Year	Semester	
	I	II
Farm Management (F. M. 2).....	4	—
Farm Machinery (F. Mech. 101).....	3	—
Gas Engines, Tractor and Automobiles (F. Mech. 102).....	—	4
Cropping Systems and Methods (Agron. 120).....	—	2
Farm Drainage (F. Mech. 107).....	—	2
Farm Forestry (Forestry 1).....	—	3
Electives	10	6

HORTICULTURE

There are several reasons why the State of Maryland should be pre-eminent in the different lines of horticulture and offers such excellent opportunities for horticultural enterprises. A few of the more evident ones are the wide variation in soil and climate from the Eastern Shore to the mountainous counties of Allegany and Garrett in the west, the nearness to all of the large Eastern markets, and the large number of railroads, interurban lines and waterways, all of which combine to make marketing easy and comparatively cheap.

The Department of Horticulture offers four major lines of work, namely: Pomology, olericulture, floriculture and landscape gardening. Students wishing to specialize in horticulture can arrange to take either a general course during the four years, or enough work is offered in each division to allow students to specialize during the last two years in any of the four divisions. The courses have been planned to cover such subject matter that upon their completion students should be fitted either to engage in commercial work, county agent work, or teaching and investigational work in the State and Federal institutions.

The department has at its disposal about twenty acres of ground devoted to vegetable gardening, eighteen acres of orchards, small fruits and vineyards, and twelve greenhouses, in which flowers and forcing crops are grown. Members of the teaching staff are likewise members of the experiment station staff, and thus students have an opportunity to become acquainted with the research which the department is carrying on. Excellent opportunity for investigating new problems is afforded to advanced undergraduates and to graduate students.

Students who intend to specialize in pomology or olericulture are required to take the same subjects which other agricultural students take during the first two years. Students who specialize in floriculture or landscape gardening, however, will take a slightly different curricula. It is felt that such students require certain special courses, which it is unnecessary to require of all agricultural students. The curricula follows:

Pomology

<i>Junior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Systematic Pomology (Hort. 2).....	3	—
Small Fruit Culture (Hort. 4).....	—	2
Fruit and Vegetable Judging (Hort. 5).....	2	—
Expository Writing (Eng. 5-6).....	2	2
Plant Physiology (Plt. Phy. 1).....	4	—
General Floriculture (Hort. 21).....	—	2
Diseases of Plants (Plt. Path. 1).....	3	—
General Entomology (Ent. 1).....	—	3
Genetics (Agron. 101).....	3	—
Electives	—	8

Senior Year

Commercial Fruit Growing (Hort. 101).....	3	—
Economic Fruits of the World (Hort. 102).....	—	2
Horticultural Seminar (Hort. 43).....	1	1
General Landscape Gardening (Hort. 31).....	—	2
Farm Management (F. M. 2).....	4	—
Horticultural Breeding Practice (Hort. 41).....	—	1
Horticultural Research and Thesis (Hort. 42).....	2	2
Electives	7	9

Olericulture

Junior Year

Small Fruit Culture (Hort. 4).....	—	2
Diseases of Plants (Plt. Path. 1.).....	3	—
Genetics (Agron. 101).....	3	—
Expository Writing (Eng. 5-6).....	2	2
General Floriculture (Hort. 21).....	—	2
Plant Physiology (Plt. Phy. 1).....	4	—
Truck Crop Production (Hort. 12).....	3	—
Vegetable Forcing (Hort. 13).....	—	3
Electives	2	8

Senior Year

Farm Management (F. M. 2).....	4	—
General Landscape Gardening (Hort. 31).....	—	2
Horticultural Breeding Practice (Hort. 41).....	—	1
Tuber and Root Crops (Hort. 103).....	2	—
Systematic Olericulture (Hort. 105).....	3	—
Advanced Truck Crop Production (Hort. 104).....	—	2
Horticultural Research and Thesis (Hort. 42).....	2	2
Horticultural Seminar (Hort. 43).....	1	1
Electives	5	9

Floriculture

<i>Sophomore Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Elements of Organic Chemistry (Chem. 12).....	4	—
Agricultural Chemical Analysis (Chem. 13).....	—	3
Plant Physiology (Plt. Phy. 1).....	4	—
Geology (Geo. 1)	3	—
Principles of Soil Management (Soils 1).....	—	3
General Landscape Gardening (Hort. 31).....	—	2
Elementary Pomology (Hort. 1).....	3	—
Basic R. O. T. C. (M. I. 102).....	2	2
Electives	1	7

Junior Year

Greenhouse Management (Hort. 22).....	3	3
Floricultural Practice (Hort. 23).....	2	2
Floricultural Trip (Hort. 27).....	—	1
Greenhouse Construction (Hort. 24).....	—	2
Garden Flowers (Hort. 26).....	3	—
Expository Writing (Eng. 5-6).....	2	2
Principles of Economics (Econ. 5-A).....	—	3
Diseases of Plants (Plt. Path. 1).....	3	—
Systematic Botany (Bot. 3).....	—	2
Elements of Landscape Design (Hort. 33).....	3	—
Electives	1	2

Senior Year

Commercial Floriculture (Hort. 25).....	3	3
Plant Materials (Hort. 106).....	2	3
Vegetable Forcing (Hort. 13).....	—	3
Agricultural Economics (A. E. 1).....	3	—
Horticultural Breeding and Practice (Hort. 41).....	—	1
Horticultural Seminar (Hort. 43).....	1	1
Horticultural Research and Thesis (Hort. 42).....	2	2
Diseases of Ornamentals (Plt. Path. 105).....	2	—
Electives	4	4

Landscape Gardening

Freshman Year

Gen. Chem. and Qual. Anal. (Inorg. Chem. 1).....	4	4
General Zoology (Zool. 1).....	4	—
General Botany (Bot. 1).....	—	4
Composition and Rhetoric (Eng. 1).....	3	3
Public Speaking (P. S. 1-2).....	1	1
Algebra (Math. 1.); Trigonometry (Math. 1).....	3	3
Basic R. O. T. C. (M. I. 101).....	1	1

<i>Sophomore Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
French or German.....	3-4	3-4	—
Plant Physiology (Plt. Phy. 1).....	4	—	—
Geology (Geol. 1).....	3	—	—
Principles of Soil Management (Soils 1).....	—	3	—
Plane Surveying (Sur. 1-2).....	1	2	—
General Landscape Gardening (Hort. 31).....	—	2	—
Expository Writing (Eng. 5-6).....	2	2	—
Engineering Drafting (Dr. 1).....	1	1	—
Basic R. O. T. C. (M. I. 102).....	2	2	—
Electives	1-0	2-1	—

<i>Junior Year</i>			
Elementary Pomology (Hort. 1).....	3	—	—
Plant Materials (Hort. 106).....	2	3	—
History of Landscape Gardening (Hort. 34).....	1	—	—
Elements of Landscape Design (Hort. 32).....	3	—	—
Landscape Design (Hort. 33).....	—	3	—
Garden Flowers (Hort. 26).....	3	—	—
Principles of Economics (Econ. 1).....	—	4	—
Diseases of Plants (Plt. Path. 1).....	3	—	—
Systematic Botany (Bot. 2).....	—	2	—
Farm Drainage (F. Mech. 107).....	—	2	—
Electives	2	3	—

<i>Senior Year</i>			
Landscape Design (Hort. 34)	3	—	—
Landscape Construction and Maintenance (Hort. 35).....	1	—	—
Civic Art (Hort. 36).....	—	2	—
Horticultural Research and Thesis (Hort. 42).....	2	2	—
Horticultural Seminar (Hort. 43).....	1	1	—
Electives	10	12	—

POULTRY HUSBANDRY

The course in Poultry Husbandry is designed to give the student a broad view of the practices of poultry raising. Those students who expect to develop into teachers, extension workers or investigators should choose as electives such subjects as psychology, economic history, sociology, philosophy, political science and kindred subjects.

<i>Junior Year</i>			
Poultry Production (Poultry 103).....	—	4	—
Expository Writing (Eng. 5 and 6).....	2	2	—
General Bacteriology (Bact. 1-2).....	3	3	—
Genetics (Agron. 101).....	3	—	—
Poultry Keeping (Poultry 102).....	4	—	—
Agricultural Economics (A. E. 1).....	3	—	—
Electives	2	8	—

<i>Senior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Farm Management (F. M. 2).....	4	—	—
Farm Accounting (F. M. 1).....	—	4	—
Animal Hygiene (V. M. 102).....	—	3	—
Poultry Breeds (Poultry 104).....	4	—	—
Poultry Management (Poultry 105).....	—	4	—
Marketing Farm Products (A. E. 2).....	—	3	—
Electives	6	3	—

SOILS

The Department of Soils gives instruction in the physics, chemistry and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Students who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The department possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves for teaching soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Soils, United States Department of Agriculture.

		<i>Semester</i>	
		<i>I</i>	<i>II</i>
<i>Junior Year</i>			
Expository Writing (Eng. 5-6).....	2	2	—
Agricultural Economics (A. E. 1).....	3	—	—
General Bacteriology (Bact. 1).....	3	—	—
Soil Micro-biology (Soils 7).....	—	3	—
Fertilizers and Manures (Soils 2).....	3	—	—
Soil Fertility (Soils 3).....	—	3	—
Plant Physiology (Plt. Phy. 1).....	4	—	—
Cropping Systems and Methods (Agron. 120).....	—	2	—
Electives	3	7	—

<i>Senior Year</i>			
Farm Management (F. M. 2).....	4	—	—
Methods of Soil Investigation (Soils 102).....	—	2	—
Soil Surveying and Classification (Soils 5).....	3	—	—
Soil Technology (Soils 101).....	3	3	—
Farm Drainage (F. Mech. 107).....	—	2	—
Seminar (Soils 111).....	1	1	—
Electives	7	8	—

SHORT COURSE IN AGRICULTURE

Students who have had four years of high school training or its equivalent may follow a two-year curriculum of regular college courses. In order to fulfil the individual needs, some leeway is allowed for selection of courses in which students are particularly interested. A certificate is granted by the college upon completion of two years of work. If, after the student has been awarded a certificate, he is desirous of taking work for a degree, he may continue for two years with the regular college curriculum.

	Semester	
	I	II
<i>First Year</i>		
General Animal Husbandry (A. H. 1).....	3	—
Principles of Vegetable Culture (Hort. 11).....	—	3
Field Crop Production (Agron. 2).....	3	3
General Botany (Bot. 1).....	4	—
Farm Dairying (D. H. 1).....	—	3
Basic R. O. T. C. (M. I. 1).....	1	1
Electives	6	7
<i>Second Year</i>		
Elementary Pomology (Hort. 1).....	3	—
Feeds and Feeding (A. H. 2).....	3	—
Plant Diseases (Plt. Path. 1).....	3	—
Poultry (P. 1).....	—	3
Principles of Breeding (A. H. 3).....	—	3
Farm Accounting (F. M. 1).....	—	3
Farm Management (F. M. 2).....	4	—
Farm Machinery (F. Mech. 101).....	3	—
Gas Engines, Tractors and Automobiles (F. Mech. 102).....	—	4
Electives	2	5

AGRICULTURAL EXPERIMENT STATION

HARRY J. PATTERSON, *Director*

The agricultural work of the University naturally comprises three fields: research, instruction and extension. The Agricultural Experiment Station is the research agency of the University, which has for its purpose the increase of knowledge relating to agriculture, primarily for the direct benefit of the farmer. It is also the real source of agricultural information for use in the classroom and for demonstrations in the field.

The Experiment Station work is supported by both State and Federal appropriations. The Hatch Act passed by Congress in 1887 appropriates \$15,000 annually; the Adams Act, passed in 1906, provides an additional \$15,000 annually, and the Purnell Act, passed in 1925, provides \$20,000 for the next fiscal year and an increase of \$10,000 each year until the amount reach \$60,000 annually.

The objects, purposes and work of the Experiment Stations as set forth by these acts are as follows:

"That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."

The Purnell Act also permits the appropriation to be used for conducting investigations and making experiments bearing on the manufacture, preparation, use, distribution and marketing of agricultural products and for such Economic and Sociological investigations as have for the purpose the development and improvement of the rural home and rural life.

The Maryland Station, in addition to the work conducted at the University, operates a sub-station farm of fifty acres at Ridgely, Caroline County, and a farm of about sixty acres at Upper Marlboro for tobacco investigations. Experiments in co-operation with farmers are conducted at many different points in the State. These tests consist of

studies with soils, fertilizers, crops, orchards, insect and plant disease control and stock feeding.

The results of the Experiment Station work during the past quarter of a century have developed a science of agriculture to teach and have laid a broad and substantial foundation for agricultural development. The placing of agricultural demonstrations and extension work on a national basis has been the direct outgrowth of the work of the Experiment Stations.

The students taking courses in agriculture are kept in close touch with the investigations in progress.

EXTENSION SERVICE

T. B. SYMONS, *Director*

The Extension Service is that branch of the University of Maryland, established by Federal and State law, to assist the farmer and his family in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in co-operation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and in all but a few counties by a home demonstration agent. Through these agents and its staff of specialists, the Extension Service comes into intimate contact with rural people and with the problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of the work undertaken by the Extension Service. Farmers are supplied with details of crop and livestock production; with instructions for controlling disease and insect pests; they are encouraged and aided in organized effort; helped with marketing problems, and in every way possible assisted in improving economic conditions on the farm.

Rural women are likewise assisted in the problems of the home. They are made acquainted with time and labor-saving devices; with simpler and easier methods of work; with new knowledge of foods; with new ideas about home furnishing; with practical methods of home sewing and millinery construction, and with such other information as tends to make rural home life attractive and satisfying.

For rural boys and girls, the Extension Service provides a valuable type of instruction in agriculture and home economics through its 4-H Club work. The instruction is incident to actual demonstrations conducted by the boys and girls themselves. These demonstrations, under supervision of the county and home demonstration agents, are the best possible means of imparting to youthful minds valuable information in crop and livestock production and in the household arts. The 4-H Club work, moreover, affords the rural boys and girls a very real opportunity to develop the qualities of self-confidence, perseverance and leadership.

The Extension Service works in accord with all other branches of the University of Maryland and with all agencies of the United States Department of Agriculture. It co-operates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in every way possible in making effective the regulatory work and other measures instituted by the State Board of Agriculture.

COLLEGE OF ARTS AND SCIENCES

FREDERIC E. LEE, *Dean*

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics and business administration, history, languages and literature, mathematics, philosophy, physical sciences, political science, psychology and sociology. It thus affords the student an opportunity to acquire a general education which shall serve as a foundation for success in whatever profession or vocation he may choose. It particularly prepares the way and lays the foundation for the learned professions of law, medicine, theology, teaching and even for the more technical professions of engineering, public health service and business administration. Through the aid which it furnishes other colleges of the University it aims to give students of these colleges the broad outlook necessary for liberal culture and for public service.

This College is an outgrowth of the Division of Language and Literature of Maryland State College and later of the School of Liberal Arts of the University. In 1921 the School of Liberal Arts and the School of Chemistry were combined and other physical and biological sciences were brought into the newly formed College of Arts and Sciences, thus making it a thoroughly standardized Arts and Science College. In 1922-1923 the scope and program of the various groups and departments of the College were extensively reorganized in order to broaden and amplify the courses of instruction offered.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are in general the same as those for admission to the other colleges and schools of the University. See Section I, "Entrance."

For admission to the pre-medical and pre-dental curricula two years of any one foreign language in addition to the regularly prescribed units are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the pre-medical curriculum will be found under the School of Medicine.

Departments

There are eleven university departments under the administrative control of the College of Arts and Sciences; Classical Languages, Chemistry, Economics and Sociology, English, History and Political Science, Mathematics, Modern Languages, Philosophy and Ethics, Physics, Public Speaking, and Zoology and Aquiculture. In addition to these, there are other departments which, although they are under the control of other colleges of the University, furnish instruction for the College of Arts

and Sciences: Bacteriology, Botany, Entomology, Geology, Military Science, Physical Education and Psychology. Students in this college are also permitted to elect certain courses in the Colleges of Agriculture, Education, Engineering, and Home Economics.

Degrees

The degrees conferred upon students who have met the prescribed conditions for a degree in the College of Arts and Sciences are: Bachelor of Arts and Bachelor of Science.

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied all entrance requirements and has secured credit for a minimum of 127 credit hours including six hours of military science for all able-bodied men students and six hours of physical education for all women students and one hour of library science for all students except those taking the special curricula in chemistry, business administration, and the combined courses in which there are special requirements. Students who have received eight credits for military science or physical education are required to complete 129 credit hours for graduation.

Graduates of this college who have completed the regular course are awarded the degree of Bachelor of Arts, except that, upon request, any student who has met the requirements for that degree may be awarded the degree of Bachelor of Science, provided the major portion of his work has been done in the field of science and his application has the approval of the department in science in which his major work has been carried. Students who have elected the combined program of Arts and Medicine are granted the degree of Bachelor of Arts or Bachelor of Science after the completion of at least three years of the work of this college and the first year of the School of Medicine. Those electing the combined five-year Academic and Nursing Course are awarded the degree of Bachelor of Science upon the completion of the full course. Those taking the combined course in Arts and Law will be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of full-time law courses, or its equivalent, in the University Law School. This last combined program will be in full effect after September, 1927, by which time the Law School will require two years of pre-law courses for admission.

The last thirty hours of Arts courses in all the combined programs must be completed in residence at College Park. Likewise, the last thirty hours of the regular course leading to a degree must be taken in College Park.

Normal Load

The normal load for the Freshman year is seventeen hours a week for the first semester, including one hour of library science and one hour of military science or physical education, and sixteen hours for the second semester. The Sophomore load is seventeen hours per semester, two hours of which are military science or physical education.

The normal load for the Junior and Senior years is fifteen hours.

Absolute Maximum

Students whose average grade for the preceding year is a straight B or above may be permitted to take additional hours for credit with the approval of the Dean, *but in no case shall the absolute maximum of 19 hours per week be exceeded.* In the majority of cases it is better for the student to put in four full years in meeting the requirements for a degree than to try to cover the course in a shorter period by taking additional hours.

Freshman-Sophomore Requirements

(a) Before the beginning of the Junior year the student must have completed sixty credit hours in basic courses, at least four or five of which must be taken from each of six of the eight groups described below under major and minor requirements.

(b) Not more than twenty of these hours may be taken in one department.

(c) Freshmen and sophomores may not carry more than twelve hours in one group at a time.

Freshman Program

	Semester	
	I	II
English 1 y.	3	3
Foreign Language <i>Latin</i>	4-3	4-3
Science (Biological or Physical) <i>Zool - Botany</i>	4	4
Public Speaking 1 y.	1	1
R. O. T. C., M. I. 1 y., or Physical Education 1 y.	1	1
Library Science 1 f.	1	—
Freshman Lectures	—	—

Elect one of the following:

*Elements of Social Science 1 y.	3	
**Mathematics 1 f.-2 s.	3	3
Modern European History (Hist. 1 y.)	3	
English Literature (Eng. 1 y.)	3	
Total hours	17	16

Sophomore Year

The curriculum of the Sophomore year has been arranged on the basis of a wider election of courses than has heretofore prevailed, but the selection of these courses must be strictly within the limits set forth above under Freshman-Sophomore requirements.

*Prerequisite to the advanced courses in Economics, Government and Sociology.

** Prerequisite to Physics and necessary for students pursuing advanced courses in Chemistry.

Major and Minor Requirements

For the purpose of choosing major and minor fields of study, the courses of instruction open to students in the College are divided into eight groups. During this academic year minors only may be carried in Groups II and VII.

GROUPS

I. Biological Sciences	{ Botany Zoology Bacteriology Entomology
II. Classical Languages and Literatures	{ Latin Greek
III. English Language and Literature	{ English English Literature Public Speaking
IV. History and Social Sciences	{ Economics History Political Science Sociology
V. Mathematics	{ Pure Mathematics Applied Mathematics Astronomy
VI. Modern Languages and Literatures	{ French German Spanish
VII. Philosophy, Psychology, and Education	
VIII. Physical Sciences	{ Chemistry Geology Physics

(a) A major shall consist of not less than 20 and not more than 40 hours in a Department, and of not less than 30 and not more than 60 in the group including the major department.

(b) A minor shall consist of not less than 20 and of not more than 30 credit hours in a group related to the major group, not more than 25 of which shall be in any one department. Any hours taken in excess of this

maximum in the minor group will not count as credit hours toward a degree. The minor must be approved by the major department.

(c) At the beginning of his Junior year each student (except those following prescribed curricula) must select a major in one of Groups I to VIII and before graduation must complete one major and one minor. In certain exceptional cases two minors may be allowed, but in no case will any hours above the maximum of 30 in either minor be counted for credit toward a degree.

(d) The courses constituting a major must be chosen under the supervision of the faculty of the department in which the major work is done and must include a substantial number of courses not open to freshmen and sophomores.

Specific Requirements for Graduation

Before graduation the following specific requirements must be completed by all students.

- A. Military Science 1-2, six hours.
- B. Library Science 1, one hour.
- C. Group Requirements:
 - I. *English*—The required course in Composition and Rhetoric and two hours of Public Speaking. In addition at least a one-semester course must be taken in some form of advanced composition or in literature.
 - II. *Foreign Languages and Literature*—If a student enters the University with but two units of language or less, he must pursue the study of foreign language for two years. If three or more units of foreign language are offered for entrance he must continue the study of foreign language for one year. Students who offer two units of a foreign language for entrance, but whose preparation is not adequate for the second year of that language, receive only half credit for the first year's course.
 - III. *History and the Social Sciences*—At least nine hours of history, economics, political science, or sociology, which shall include at least a one-semester course in history other than State history.
 - IV. *Mathematics and Natural Sciences*—A minimum requirement of eight hours of laboratory science with a minimum of eleven hours in this group.
 - V. *Education, Philosophy, and Psychology*—Six hours, with at least one course in Philosophy or Psychology.

Completion of Specific Requirements

It is strongly recommended that students complete as much of the above specific prescribed work by the end of the Sophomore year as can

be taken without interfering with the general Freshman-Sophomore requirements. All of the specific requirements for graduation must be met before a student may be admitted to full senior standing.

Junior-Senior Requirements

The work in the Junior and Senior years is elective within the limits set by the Major and Minor requirements and the completion of the specific requirements as outlined above.

Students With Advanced Standing

Students entering the Junior year of the College of Arts and Sciences with advanced standing from other universities or from other colleges of this university will be required to meet the requirements respecting studies of the first two years only to the extent of their deficiencies in credits in Arts and Science subjects for full junior standing. Scholarship requirements as outlined in Section I of this catalogue will apply to all courses offered for advanced standing.

Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges of the University.

The number of semester hours accepted from the various colleges is as follows:

- College of Agriculture—Fifteen.
- College of Education—Twenty.
- College of Engineering—Fifteen.
- College of Home Economics—Twenty.
- School of Law—Thirty in combined program.
- School of Medicine—Thirty in combined program.
- School of Nursing—Two years in combined program.

Student Responsibility

The individual student will be held responsible for the selection of his courses and major in conformity with the preceding regulations.

Advisers

Each new student may be assigned to a member of the faculty as his personal adviser who will assist him in the selection of his courses, the arrangement of his schedule, and any other matters on which he may need assistance or advice. The faculty adviser acts in this capacity as assistant and representative of the Dean, who is charged with the execution of all of the foregoing rules and regulations.

SPECIAL CURRICULA

Special curricula are provided in Chemistry, Business Administration, for the Pre-Medical, Pre-Dental, and Pre-Law courses; and for the combined programs in Arts and Nursing and Arts and Law.

CHEMISTRY

In order that the Chemistry Department may best serve the various demands laid upon it by the University and State, it is divided into the following divisions:

- | | |
|---------------------------|-----------------------|
| 1. Inorganic. | 5. Physical. |
| 2. Organic. | 6. Industrial. |
| 3. Analytical. | 7. State control work |
| 4. Agricultural and Food. | of fertilizers, feed |
| | and lime analysis. |

These divisions, except 7, furnish courses giving the basic principles of chemistry which serve as a necessary part of a general education and which lay a foundation for scientific and technical work such as medicine, engineering, agriculture, dentistry, pharmacy, etc.

Besides serving in this fundamental way the Divisions furnish courses in preparation for the following careers:

1. *Industrial Chemist*—The State of Maryland, including the chemistry bureaus of Washington, is a great center of chemical industry. Rarely a week passes that some industry or bureau does not call for a man well trained in chemistry. Fundamental chemistry is becoming more and more recognized as the basis of many industries. Many apparently efficient chemical industries have been greatly improved by the application of modern chemistry. Chemical corporations employ chemists to manage and develop units of their plants. See Curriculum II.

2. *Food and Agricultural Chemist*—There has never been a greater demand for food chemists than at the present time. Various bureaus and food laboratories are calling for men who have a good grounding in modern chemistry, including microscopy. Courses have been arranged to meet this demand. Curriculum III may be so adjusted through its electives to fit a man for agricultural experiment stations, bureaus of soils, geological surveys, as well as for food laboratories.

3. *Teachers of Chemistry*—There is a growing need of suitably trained chemistry teachers. The American Chemical Society is now taking steps to encourage better teaching of chemistry in high schools, colleges and universities. The Chemistry Department feels that it is its duty to help carry this message to the teachers of Maryland by encouraging a better correlation between the high school chemistry and college chemistry and also by giving courses where students may find a good preparation for the profession of teaching chemistry. Curriculum I as outlined not only offers the science, but in co-operation with the College of Education, the students are able to take the educational subjects which are required to obtain the special teacher's diploma. To prepare for college teaching it is necessary to take graduate work leading, at least, to a master's degree.

4. *Research Chemist*—There is no line of work more important in the State than chemical research. During the war people had this brought

home to them in a very definite way. Since the war, chemists have turned their attention to constructive chemical research work. See Curriculum I.

Perhaps the two most prominent pieces of constructive work are the eradicating of diseases of both plants and animals, and the increase of production in both farming and industry. The research at the University of Maryland is being fundamentally directed along these lines. Special work is being done by the department in helping to eradicate tuberculosis and cancer.

The Chemistry Department gives courses leading to higher degrees which fit men for these positions. (See Graduate School.)

CHEMISTRY CURRICULA

The following curricula are given to aid students in the choice of subjects:

I. GENERAL CHEMISTRY

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1 y.)	3	3
Modern Language (French or German)	4	4
Mathematics (Math. 1 f. and 2 s.)	3	3
General Chemistry (Chem. 1-A y. or 1-B y.)	4	4
Elements of Social Science (Soc. Sci. 1 y.)	3	3
Basic R. O. T. C. (M. I. 1 y.)	1	1
Freshman Lectures	—	—
	18	18
<i>Sophomore</i>		
Public Speaking (P. S. 1 y.)	1	1
Qualitative Analysis (Chem. 2 y.)	4	4
Physics (Phys. 1 y.)	4	4
Mathematics (Math. 5 f. and 6 s.)	3	3
Basic R. O. T. C. (M. I. 2 y.)	2	2
Electives	3	3
	17	17
<i>Junior Year</i>		
Quantitative Analysis (Chem. 6 y.)	4	4
Chemical Calculation (Chem. 3 y.)	1	1
Advanced Composition and Rhetoric (Eng. 3 f. and 4 s.)	2	2
Organic Chemistry (Chem. 8 y.)	4	4
Bacteriology (Bact. 1 f.)	3	—
Zoology (Zool. 1 s.)	—	4
Electives	3	3
	17	18

	Semester	
Senior Year	I	II
Physical Chemistry (Chem. 102 f. and 103 s.)	4	4
Industrial Chemistry (Chem. 110 y.)	3	3
Seminar	1	1
Electives	7	7
	15	15

Co-operative Program in Chemistry

Arrangements have been made with certain industries so that students of high average ability, by utilizing their summers, may take a four-year course leading to a B. S. in chemistry, and at the same time earn sufficient money to meet a large part of their expenses during the last two years. This plan is made possible by the following proportionment of time:

PROPORTIONMENT OF A STUDENT'S FOUR-YEAR COLLEGE CAREER

	First Year		First Summer	Second Year		Second Summer
	1st Sem.	2nd Sem.		1st Sem.	2nd Sem.	
Time	Sept. 15 to Feb. 1	Feb. 1 to June 15	June 15 to Aug. 15	Aug. 15 to Sept. 15	Sept. 15 to Feb. 1	Feb. 1 to June 15
Occupation	Study	Study	Study	Vacation	Study	Study
Credit Hours	18	18	10		18	18

	Third Year		Third Summer	Fourth Year	
	1st Sem.	2nd Sem.		1st Sem.	2nd Sem.
Time	Sept. 15 to Feb. 1	Feb. 1 to June 15	June 15 to Sept. 1	Sept. 1 to Sept. 15	Sept. 15 to Feb. 1
Occupation	Study	Work	Study	Vacation	Work
Credit Hours	18		10		18

It will be noted that the credit hours total 128, which fulfills the standard requirement in an Arts and Science College, and that this is done without taking more than 19 hours in any one semester except in the Curriculum in Industrial Chemistry, which corresponds in hours to the Engineering curricula.

Since the co-operation with the industries does not begin until the second year, most of the student's work in departments other than the chemistry department has been completed. On the other hand, if these subordinate courses have not been finished, no difficulty arises, for all shifts come at the usual break in the scholastic year (June 15th or Feb. 1st). It may be further noted that while a junior is studying, a senior is working, and vice versa. In this way the job is manned continuously, and each student gets one year of practical experience during his last two years in college.

Some advantages which the plan offers to the student are the following:

1. Utilizes summers along lines which are in tune with the student's life work;
 2. Gives him an outlook upon a practical field while studying, and helps him to see the need of acquiring chemical knowledge;
 3. Brings him in contact with the practical men of the country and, hence, helps him to get a vision of the practical side of the science;
 4. Acts as vocational guidance, i. e., the student knows at the end of four years whether or not he wishes to be a chemist;
 5. He will usually be placed at the end of four years, for he has had a chance to show his worth to someone who needs a man;
 6. He earns sufficient money to nearly pay his expenses during his last two years in college.
- Each of the curricula in Chemistry may be worked on this plan.

GENERAL CHEMISTRY

	Co-operative Plan	
	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1 y.)	3	3
Modern Language (French or German)	4	4
Mathematics (1 f. and 2 s.)	3	3
General Chemistry (Chem. 1-A y. or 1-B y.)	4	4
Elements of Social Science (Soc. Sci. 1 y.)	3	3
Basis R. O. T. C. (M. I. 1 y.)	1	1
Freshman Lectures	—	—
	18	18
First Summer		
Qualitative Analysis (Chem. 2 y.)	8	—
Advanced Composition and Rhetoric (Eng. 3 f.)	2	—
	10	

<i>Sophomore Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Public Speaking (P. S. 1 y.)	1	1	
Quantitative Analysis (Chem. 6 y.)	4	4	
Chemical Calculations (Chem. 3 y.)	1	1	
Physics (Phys. 1 y.)	4	4	
Mathematics (Math. 5 f. and 6 s.)	3	3	
Basic R. O. T. C. (M. I. 2 y.)	2	2	
Electives	3	3	
	—	—	
SECOND SUMMER WORK	18	18	

<i>Junior Year—First Semester</i>			
Organic Chemistry (Chem. 8 y.)	4	—	
Bacteriology (Bact. 1 f.)	3	—	
Botany 1 f. or Zoology 1 f.	4	—	
Seminar or Public Speaking	1	—	
Psychology (Psych. 1 f.)	3	—	
Electives	3	—	
	—	—	
SECOND SEMESTER WORK	18		

<i>Third Summer</i>			
Advanced Composition and Rhetoric (Eng. 4 s.)	2	—	
Industrial Chemistry (Chem. 110 f.)	3	—	
Physical Chemistry (Chem. 102 f.)	4	—	
	—	—	
	9		

SENIOR YEAR—FIRST SEMESTER WORK

<i>Second Semester</i>			
Physical Chemistry (Chem. 103 s.)	4		
Industrial Chemistry (Chem. 110 s.)	3		
Organic Chemistry (Chem. 8 y.)	4		
Seminar or Public Speaking	1		
Botany 1 s. or Zoology 1 s.	4		
Electives	3		
	—		
	19		

II. INDUSTRIAL CHEMISTRY

Co-operative Plan

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1 y.)	3	3	
Modern Language (German or French)	3	3	
Public Speaking (P. S. 1 y.)	1	1	
Mathematics (Math. 3 f. and 4 s.)	5	5	
General Chemistry (Chem. 1-A y. or 1-B y.)	4	4	
Engineering Drafting (Dr. 1 y.)	1	1	
Shop and Forge Practice (Shop 1 y.)	1	1	
Basic R. O. T. C. (M. I. 1 y.)	1	1	
Freshman Lectures	—	—	
	—	—	
	19	19	

<i>First Summer</i>			
Qualitative Analysis (Chem. 2 y.)	8	—	
Quantitative Analysis (Chem. 6 y.—1st part)	2	—	
	—	—	
	10		

<i>Sophomore Year</i>			
Quantitative Analysis (Continuation of Chem. 6 y.)	3	3	
Organic Chemistry (Chem. 8-y.)	4	4	
Mathematics (Math. 7 y.)	5	5	
Physics (Phys. 2 y.)	5	5	
Descriptive Geometry (Dr. 2 y.)	2	2	
Basic R. O. T. C. (M. I. 2 y.)	2	2	
	—	—	
	21	21	

SECOND SUMMER WORK

<i>Junior Year—First Semester</i>			
Engineering Mechanics (Mech. 1 y.) (1st half)	4	—	
Prime Movers (Engr. 1 y.)	3	—	
Gas Analysis (Chem. 112 f.)	4	—	
Economics (Econ. 5-E f.)	3	—	
Identification of Organic Compounds (Chem. 203 f.)	5	—	
Engineering Jurisprudence (Engr. 101 f.)	1	—	
	—	—	
	20		

SECOND SEMESTER WORK

<i>Third Summer</i>			
Physical Chemistry (Chem. 102 f.)	4	—	
Industrial Chemistry (Chem. 110 f.)	3	—	
Unit Processes of Chemical Engineering (Chem. 113)	3	—	
	—	—	
	10		

SENIOR YEAR—FIRST SEMESTER WORK

<i>Second Semester</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Engineering Mechanics (Mech. 1 y.) (2nd half)			4
Prime Movers (Engr. 1 y.) (2nd half)			2
Thermodynamics (Chem. 114 s.)			3
Elements of Machine Design (M. E. 102 s.)			3
Physical Chemistry (Chem. 103 s.)			4
Industrial Chemistry (Chem. 110 y.) (2nd half)			3
			—
		19	

III. AGRICULTURAL CHEMISTRY

<i>Freshman Year</i>			
Composition and Rhetoric (Eng. 1 y.)	3	3	
Modern Language (French or German)	4	4	
Mathematics (Math. 1 f. and 2 s.)	3	3	
General Chemistry (Chem. 1-A y. or 1-B y.)	4	4	
General Zoology (Zool. 1 f.)	4	—	
General Botany (Bot. 1 s.)	—	4	
Freshman Lectures	—	—	
	18	18	

<i>Sophomore Year</i>			
Physics (Phys. 1 y.)	4	4	
Mathematics (Math. 5 f. and 6 s.)	3	3	
Qualitative Analysis (Chem. 2 y.)	4	4	
Agricultural Chemical Analysis (Chem. 13 s.)	—	3	
Psychology (Psych. 1 f.)	3	—	
Advanced English Composition (Eng. 3 f.—4 s.)	2	2	
R. O. T. C. (M. I. 2 y.)	2	2	
	—	—	
	18	18	

<i>Junior Year</i>			
Elements of Social Science (Soc. Sci. 1 y.)	3	3	
Organic Chemistry (Chem. 8 y.)	4	4	
Food Inspection and Analysis (Chem. 105 y.)	4	4	
Plant Physiology	4	—	
Animal Physiology	—	4	
Electives	2-4	2-4	
	—	—	
	17	17	

<i>Senior Year</i>			
Physical Chemistry (Chem. 114 f.—115 s.)	4	4	
Physiological Chemistry (Chem. 104 f.)	4	—	
Chemistry of Nutrition (Chem. 109 s.)	—	4	
Economics (Econ. 5 f.)	3	—	
Bacteriology (Bact. 1 s.)	—	3	
Agricultural Chemical Seminar (Chem. 226 y.)	1	1	
Electives	5	5	
	—	—	
	17	17	

AGRICULTURAL CHEMISTRY CO-OPERATIVE PLAN

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1 y.)	3	3	
Modern Language (French or German)	4	4	
Mathematics (Math. 1 f. and 2 s.)	3	3	
General Chemistry (Chem. 1-A y. or 1-B y.)	4	4	
General Zoology (Zool. 1 f.)	4	—	
General Botany (Bot. 1 s.)	—	4	
Basic R. O. T. C. (M. I. 1 y.)	1	1	
Freshman Lectures	—	—	
	19	19	

<i>First Summer</i>			
Qualitative Analysis (Chem. 2 y.)	8	—	
Quantitative Analysis (Chem. 6 y.) (1st part)	2	—	
	—	—	
	10		

<i>Sophomore Year</i>			
Physics (Phys. 1 y.)	4	4	
Mathematics (Math. 5 f. and 6 s.)	3	3	
Organic Chemistry (Chem. 8 y.)	4	4	
Elements of Social Science (Soc. Sci. 1 y.)	3	3	
Agricultural Chemical Analysis (Chem. 13 s.)	—	3	
Psychology (Psych. 1 f.)	3	—	
Basic R. O. T. C. (M. I. 2 y.)	2	2	
	—	—	
	19	19	

SECOND SUMMER WORK

<i>Junior Year—First Semester</i>			
Food Inspection Analysis (Chem. 105 f.)	4	—	
Plant Physiology	4	—	
Economics (Econ. 5 f.)	3	—	
Bacteriology (Bact. 1 f.)	3	—	
Advanced English Composition (Eng. 3 f.)	2	—	
Electives	2	—	
	—	—	
	18		

SECOND SEMESTER WORK

<i>Third Summer</i>			
Physical Chemistry (Chem. 102 f.)	4	—	
Physiological Chemistry (Chem. 104 f.)	4	—	
Advanced English Composition (Eng. 103 s.)	2	—	
	—	—	
	10		

SENIOR YEAR—FIRST SEMESTER WORK

<i>Second Semester</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Food Inspection Analysis (Chem. 105 y.).....	4	
Physical Chemistry (Chem. 103 s.).....	4	
Animal Physiology	4	
Chemistry of Food Nutrition (Chem. 109 s.).....	4	
	—	
	16	

BUSINESS ADMINISTRATION

By reason of the curtailment of work in the School of Business Administration of the University in June, 1926 (See Page), a curriculum in Business Administration has been re-established in the College of Arts and Sciences under the Department of Economics and Sociology.

The aim of this curriculum is to afford those who propose to enter business as a career a training in the general principles of business. The work is based on the view that through a study of the best business methods there may be obtained valuable mental discipline and at the same time a knowledge of business technique that will make for a successful business career. Business demands today particularly men who are broadly trained and not men narrowly drilled in routine. Hence, two years of liberal college training are very desirable for students desiring to enter a business career. The curriculum provides for this broad cultural background as well as the special training in business subjects.

<i>Freshman Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1 y.).....	3	3
Foreign Language (German, French, or Spanish).....	4-3	4-3
Science (Chemistry, Zoology, or Botany).....	4	4
Elements of Social Science (Soc. Sci. 1 y.).....	3	3
Algebra (Math. 1 f.).....	3	—
Economic Geography and Industry (Econ. 2 s.).....	—	3
Basic R. O. T. C. (M. I. 1 y.) or Physical Education (Phys. Ed. 1 y.).....	1	1
Freshman Lectures	—	—
	—	—
	18-17	18-17

<i>Sophomore Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Economic History of England (Econ. 3 f.).....	3	—
Economic History of the United States (Econ. 4 s.).....	—	3
Principles of Economics (Econ. 5 f.).....	3	—
Practical Economic Problems (Econ. 6 s.).....	—	3
Business English (Eng. 17 f. and 18 s.).....	2	2
Elements of Psychology (Psych. 1 f.).....	3	—
Basic R. O. T. C. (M. I. 2 y.) or Physical Education (Phys. Ed. 2 y.).....	2	2
Reading and Speaking (P. S. 1 y.).....	1	1
Library Science (L. S. 1 f.).....	1	—
Electives (English, Sociology, Political Science, History, or Education)	2	6
	—	—
	17	17
<i>Junior Year</i>		
General Accountancy (Econ. 120 y.).....	3	3
Business Organization (Econ. 115 f.).....	3	—
Corporation Finance (Econ. 116 s.).....	—	3
Business Law (Econ. 117 f. and 118 s.).....	3	3
Money and Credit (Econ. 102 f.).....	2	—
Principles of Banking (Econ. 103 s.).....	—	2
Electives	4	4
	—	—
	15	15

Electives should be chosen from the following:

Mathematical Theory of Investment (Math. 101 f.).....	3	—
Elements of Statistics (Math. 102 s.).....	—	3
Agricultural Economics (A. E. 1 f.).....	3	—
Marketing of Farm Products (A. E. 2 s.).....	—	3
General Sociology (Soc. 103 f.).....	3	—
American Population (Soc. 106 s.).....	—	3
Public Finance (Econ. 110 f.).....	3	—
Railway Transportation (Econ. 121 s.).....	—	3
Or from the Specific Requirements for Graduation.		
<i>Senior Year</i>		
Industrial Organization of Society (Econ. 150 f.).....	3	—
International Economic Relations (Econ. 155 s.).....	—	3
Or in Alternate Years		
Far Eastern Economics and Finance (Econ. 230 s.).....	—	—
Investment Principles (Econ. 106 f.).....	3	—
*Electives	9	12
	—	—
	15	15

* Electives must include the Specific Requirements for Graduation in the College of Arts and Sciences.

THE PRE-MEDICAL CURRICULUM

The minimum requirement for admission to the School of Medicine of the University of Maryland is 60 semester hours of prescribed courses, exclusive of military drill or physical education. The subjects and hours prescribed by the Council on Medical Education of the American Medical Association are covered in the first two years of the Pre-Medical Curriculum. In view of the fact, however, that about five times as many students apply for admission to the School of Medicine of the University of Maryland as can be accommodated, most of whom have a baccalaureate degree, students are strongly urged to complete the full three-year curriculum before making application to the School of Medicine.

Preference will be given students entering the School of Medicine of the University who present the credits obtained by the successful completion of the three-year curriculum or its equivalent of 98 semester hours. To meet the recommendation of the Pre-Medical Committee a student must complete the curriculum with an average grade of "C" or above and must otherwise satisfy the Committee that he is qualified by character and scholarship to enter the medical profession.

Another advantage the three-year curriculum offers over the minimum requirements of 60 hours is that the students successfully completing this program are awarded the degree of Bachelor of Arts or Bachelor of Science, on the recommendation of the Dean of the School of Medicine, after the completion of the first year's work in the Medical School. This combined program of seven years leads to the degree of Doctor of Medicine upon the completion of the full course. The first three years are taken in residence at College Park and the last four at Baltimore in the School of Medicine. At least one year of residence at College Park is necessary for students who transfer from other colleges and universities who are to become candidates for the combined degrees. Only in exceptional cases will students who have been less than two years in residence at College Park be recommended for preference in admission to the School of Medicine.

For requirements for admission see Section I, "Entrance."

PRE-MEDICAL CURRICULUM

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1 y.).....	3	3
Mathematics (Math. 1 f.-2 s.).....	3	3
General Zoology (Zool. 2 y.).....	4	4
General Chemistry (Chem. 1 y.).....	4	4
Public Speaking (P. S. 1 y.).....	1	1
Basic R.O.T.C. (M. I. 1 y.).....	1	1
	16	16

	Semester	
	I	II
<i>Sophomore Year</i>		
Physics (Phys. 1 y.).....	4	4
Organic Chemistry (Chem. 8 y.).....	4	—
Zoology (Zool. 8 f.).....	—	3
Economics (Econ. 5 s.).....	—	1
Extempore Speaking (P. S. 8 s.).....	3	3
Elements of Social Science (Soc. Sci. 1 y.).....	2	2
Basic R. O. T. C. (M. I. 2 y.).....	—	—
	17	17
<i>Junior Year</i>		
Physiological Chemistry (Chem. 104 f.).....	4	—
Embryology (Zool. 101 s.).....	—	4
Physical Chemistry (Chem. 10 y.).....	3	3
Advanced Composition and Rhetoric (Eng. 3 f.-4 s.).....	2	2
Elements of Psychology (Psych. 1 f.).....	3	—
Bacteriology (Bact. 101 s.).....	—	3
Electives	4	4
	16	16

Senior Year
The curriculum of the first year of the School of Medicine. The students also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences.

PRE-DENTAL CURRICULUM

Students taking one year of work in the College of Arts and Sciences may be admitted to the second year of the five-year course of the School of Dentistry, providing the following program of studies has been followed:

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1 y.).....	3	3
Zoology (Zool. 2 f.-3 s.).....	4	4
Mathematics (Math. 1 f.-2 s.).....	3	3
Chemistry (Chem. 1-A y. or 1-B y.).....	4	4
Public Speaking (P. S. 1 y.).....	1	1
Basic R. O. T. C. (M. I. 1 y.) or Physical Education (P. Ed. 1 y.).....	1	1
Elements of Social Science (Soc. Sci. 1 y.).....	3	3
(May be elected)	—	—
	19	19

If a second year of pre-dental education is completed in the College of Arts and Sciences it should include the following courses: Physics 1 y. and Organic Chemistry (Chem. 8 y.). The balance of the program will be made up of approved electives.

FIVE-YEAR COMBINED ARTS AND NURSING CURRICULUM

The first two years of this course are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing at least the second full year of the course must be completed in College Park.

The remaining three years are taken in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, Baltimore. The degree of Bachelor of Science and the Diploma in Nursing are granted at the end of the five-year course. Full details regarding this course may be found in the section of the catalogue dealing with the School of Nursing.

Two-Year Program in the College of Arts and Sciences

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1 y.)	3	3
Foreign Language	4-3	4-3
General Chemistry (Chem. 1 y.)	4	4
Elements of Social Science (Soc. Sci. 1 y.)	3	3
Elementary Foods (H. E. 1 y.)	3	3
Physical Education (Phys. Ed. 1 y.)	1	1
	18	18
<i>Sophomore Year</i>		
English Literature or History	3	3
Organic and Food Chemistry (Special Course)	3	—
Nutrition (Special Course)	—	3
General Economics (Econ. 5 f.)	3	—
Elements of Psychology (Psych. 1 s.)	—	3
Gen. Zoology (Zool. 1 f.)	4	—
Public Speaking (P. S. 1 y.)	1	1
Physical Education (Phys. Ed. 2 y.)	2	2
Electives	1	5
	17	17

COMBINED PROGRAM IN ARTS AND LAW

Since September, 1926, the Law School of the University has required one year of academic credit for admission to the school, and in September, 1927, two years, or sixty-seven semester hours of college credit, will be required.

The University offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in pre-legal studies as outlined below, and must complete the Specific Requirements for graduation as indicated above.

If students enter the combined program with advanced standing at least the third full year's work must be completed in residence at College Park.

Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore or its equivalent, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1 y.)	3	3
Science or Mathematics	4-3	4-3
Modern European History (H. 1 y.)	3	3
Elements of Social Science (Soc. Sci. 1 y.)	3	3
Latin or Modern Language	4-3	4-3
R. O. T. C. (M. I. 1 y.)	1	1
	18	18
<i>Sophomore Year</i>		
English, Expository Writing (Eng. 5 f.-6 s.)	2	2
General Economics (Econ. 5 f.)	3	—
U. S. Government (Pol. Sci. 2 f.)	3	—
Public Speaking (P. S. 1 y.)	1	1
Psychology (Psych. 1 s.)	—	3
Economic History (Econ. 3 f.-4 s.)	3	3
R. O. T. C. (M. I. 2 y.)	2	2
Extempore Speaking (P. S. 7 f.)	1	—
*Electives	2	6
	17	17

Junior Year

Largely electives, including the completion of the Specific Requirements for Graduation as outlined on page 72.

Senior Year

First Year of Regular Law Course

Students who are unable to take the combined program in Arts and Law may fulfill the entrance requirements of the Law School by completing the first two years of pre-legal studies as outlined in the above combined course.

* Electives should be in English, History, Latin or Modern Languages, Economics or Political Science, or a part of the Specific Requirements for Graduation.

MISCELLANEOUS

LIBRARY SCIENCE

A course in Library Methods is required of all students registered in the College of Arts and Sciences.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various catalogues, indexes and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much used reference books which the student will find helpful throughout his college course.

MUSIC

The Department of Music serves students of the University of two general classes: those who make a specialty of the subject with a view to becoming musical artists or music teachers and those who pursue musical studies for purposes of enjoyment and general culture. For the former group extensive private instruction is provided with attention to technical development along particular lines; while as large provision as possible is made for all, in the various club activities and public lectures and recitals.

For courses in music see Section III, Courses of Instruction.

Voice

Courses in voice culture are offered, covering a thorough and comprehensive study of tone production, based on the Italian method of singing.

The work required to develop a singer is begun with the most fundamental principles of correct breathing. Scale and arpeggio exercises, and all intervals, the portamento, legato, and staccato, and trill, and other embellishments to develop the technique of singing are studied through the medium of vocal exercises arranged by the greatest authorities on the voice, under the careful supervision of the instructor.

The study of songs and ballads is adapted to the ability and requirements of each singer, a thorough training being given in diction and phrasing, through the medium of sacred and secular ballads, leading to the oratorio and opera.

Opportunities are afforded all voice pupils who are capable to make public appearances in the regular pupils' recitals, as well as in the churches of the community.

Tuition

One lesson per week, term of eighteen weeks, \$24.

The above price for lessons in voice are those offered to students of the University who are pursuing regular academic courses. Terms for private instruction outside the University may be secured from the instructor in voice.

Piano

Elementary piano courses. Work for beginners, based on the Leschetizky method.

Advanced piano courses. The college work in piano presupposes three years of preparatory study of the piano, part or all of which may be taken at the University.

Lessons are taken twice a week. A four-year college course is as follows:

First Year—Technical studies based on the modern weight and rotary method: Heller Etudes, Sonatas of Haydn, Mozart, and Beethoven; selections from classic and modern composers.

Second Year—Bach Preludes; concertos by classic masters; Jensen Etudes; selections from classic, romantic, and modern composers.

Third Year—Leschetizky technic; Chopin Preludes and Waltzes; Bach Inventions; Mendelssohn Concertos, Beethoven Sonatas; selections from romantic and modern composers.

Fourth Year—Leschetizky technic; Chopin Etudes; Bach Well-Tempered Clavichord; sonatas and concertos by Greig, McDowell, Schutt, Beethoven, etc., concert pieces by modern and romantic composers.

Tuition

One lesson per week, term of eighteen weeks, \$24.

Note.—Music tuitions are due in advance. Ten per cent. is added to all tuitions not paid in advance.

COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean*.

The College of Education was established in 1920. It is organized to meet the needs of the following classes of students: (1) undergraduate students preparing to teach the cultural and the vocational studies in the high schools; (2) advanced students preparing to become high school principals, elementary school principals, educational supervisors and school administrators; (3) those preparing for educational work in the trades and industries; (4) county agents, home demonstrators, boys and girls club leaders and other extension workers; (5) students majoring in other lines who desire courses in education for their informational and cultural values.

The Summer School, although organically distinct from the College of Education, is administered by the Dean of the College of Education and is in effect an administrative division of the College.

Departments

The instructional work of the College of Education is conducted by five functional divisions or departments: History and Principles of Education, Methods in Academic and Scientific subjects, Agricultural Education, Home Economics Education and Industrial Education.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, "Entrance."

For additional requirements for admission to the curricula in Agricultural Education and Home Economics Education, see Page 96 and Page 97 respectively.

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are: Bachelor of Arts; Bachelor of Science. Upon completion of 132 credits in conformity with the requirements specified under "curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

Teachers' Special Diploma

The degrees granted for work done in the College of Education indicate primarily the quantity of work completed. The Teachers' Special Diploma certifies to the professional character of such work. Teachers'

special diplomas will be granted only to those who, besides qualifying for a degree, give promise of superior professional ability as evidenced by their personality, character, experience and success in supervised teaching.

Teachers' special diplomas are granted in the Biological Sciences, Chemistry, English, French, General High School Science, History and Social Science, Mathematics and Physics; Vocational Agriculture, Vocational Home Economics, and Industrial Education.

The recipient of a teachers' special diploma is eligible for certification by the State Superintendent of Schools without examination.

Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

Supervised Teaching. Actual experience in teaching under competent supervision is of basic importance in the preparation of teachers. Since 1920 a co-operative arrangement with the Prince George's County School authorities has been in effect whereby students preparing to teach get this experience in the Hyattsville High School under instructors employed and paid jointly by the County School Board and the University.

Observation. The observation work necessary for efficient teacher training is conducted in Washington and in nearby Maryland schools.

The nearness of these schools and of the federal offices and libraries in Washington dealing with education provides unusual opportunities for contact with actual classroom situations and current administrative problems in education.

Curricula

The departments of the College of Education fall into two main groups: General Education and Vocational Education. Two types of curricula are offered corresponding with these two major groupings.

General Education. The first of these is designed to prepare teachers of the academic and scientific subjects in high schools. The basic requirements are fixed and definite, but the student may select from a number of subjects the major and minor subjects in which he expects to qualify for teaching. The student may qualify for the degree either of Bachelor of Arts or Bachelor of Science, depending upon his election of major subject.

The requirements for majors and minors correspond in general with the requirements of the College of Arts and Sciences, but are modified in some respects to adapt them better to the needs of prospective teachers and to satisfy the regulations of the State Department of Education in regard to "the number of college credits required in any two or more subjects which are to be placed on a high school teacher's certificate."

Vocational Education. The curricula in Vocational Education are designed for the definite purpose of preparing teachers of agriculture,

home economics, manual training and industrial subjects. As the University of Maryland is the institution designated by the State Board of Education for the training of teachers of vocational agriculture, home economics and trades and industries under the provisions of the Smith-Hughes Vocational Educational Act, the curricula in this class have been organized to meet the objectives set up in the act, and in the interpretations of the Federal Board of Vocational Education and the State Board of Education. These curricula lead to the degree of Bachelor of Science.

Guidance in Registration

All students wishing to prepare for teaching should consult the Dean of the College of Education regarding possible combinations and the arrangement of their work. At the time of matriculation each student is expected to make a provisional choice of the subjects which he desires to prepare to teach and to secure the advice and approval of the heads of departments which offer these subjects. The previous training, the experience and the probable future needs of the student will govern the head of the department in his recommendations.

It is advisable for students who purpose to teach to register in the College of Education, in order that they have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

The Teachers' Special Diploma will be awarded only to the student who shall have fulfilled all of the requirements of the curriculum he elects. Students in other colleges desiring to qualify for the Teachers' Special Diploma should consult with the Dean of the College of Education at the beginning of the sophomore year in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the Junior year. *It is practically impossible to make adjustments later than that.*

Professional Requirements

As an integral part of every curriculum of the College of Education leading to a degree, a minimum of 20 credits in Education is required.

The special requirements peculiar to each curriculum in the College of Education are shown in the tabular statements of the curricula for Agricultural Education, Arts and Science Education and Home Economics Education.

Special Courses

By special arrangement extension courses in education are offered evenings and Saturdays to teachers in service and to others who may desire to qualify for teaching in the schools of Maryland after having had such work. College credit may be granted for this work if taken in course. With present facilities only a limited amount of service of this kind can be undertaken.

As the need for evening classes in industrial and home economics education arises, special courses will be offered at centers throughout the State. The number and location of these centers will depend entirely upon the need and demand for such instruction. The courses will be organized on the short unit basis and will be maintained only so long as the demand justifies their maintenance. Upon the satisfactory completion of such courses, students will be issued certificates stating the amount and character of work done.

Certification of High School Teachers

The State Board of Education will certify to teach in the approved high schools of the State only such persons as have had satisfactory professional preparation. Students who desire to teach in approved high schools of the State must, therefore, secure this professional preparation.

The State Department of Education is stimulating and encouraging instruction in music and athletics in the high schools of the State. In the majority of these schools the instruction in these subjects will have to be carried on by teachers who teach other subjects as well. Training in either or both of these subjects will be valuable for prospective teachers.

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register either in the College of Education or the College of Arts and Sciences. In any case they will register with the College of Education for the teacher's special diploma.

The Teachers' Special Diploma will be awarded only to those students who have fulfilled all the requirements of this curriculum.

General Requirements

	Semester	
	I	II
<i>Freshman Year</i>		
Composition and Rhetoric (Eng. 1).....	3	3
Educational Guidance (Ed. 1).....	1	1
Reading and Speaking (P. S. 1).....	1	1
Basic R. O. T. C. (M. I. 1), or Physical Education (Phys. Ed. 1).....	1	1
Foreign Language (French, German, Spanish, Latin, Greek)	4-3	4-3
*Inorganic Chemistry (Chem. 1-A or 1-B).....	4	4
(One of the following.)		
Modern and Contemporary History (H. 1-2).....	3	3
Elements of Social Science (Soc. Sci. 1).....	3	3
English Literature (Eng. 2).....	3	3
Mathematics (Math. 1).....	—	—
	17	17

	Semester	
	I	II
<i>Sophomore Year</i>		
Public Education in the United States (Ed. 2).....	2	—
Educational Hygiene (Ed. 3).....	—	2
Basic R. O. T. C. (M. I. 2), or Physical Education (Phys. Ed. 2).....	2	2
General Zoology (Zool. 1).....	4	—
†Electives	10	14
	18	18
<i>Junior Year</i>		
Educational Psychology (Ed. 101).....	3	—
Technic of Teaching (Ed. 102).....	—	3
English (One three-hour course).....	3	3
†Electives	10	10
	16	16
<i>Senior Year</i>		
Special Methods and Supervised Teaching (Ed. 110, 111, 112, 113, 114).....	3	3
Principles of Secondary Education (Ed. 103).....	—	3
†Electives	12	9
	15	15

Special Requirements

The semester hour requirements detailed below for each of the subjects cover all of the requirements of the State Board of Education (By-law 51) in regard to the number of college credits in any two or more subjects which are to be placed on a high school teachers' certificate.

No student will be permitted to do practice teaching who has not met all previous requirements.

English. For a major in English 36 semester hours are required as follows:

Composition and Rhetoric.....	10 semester hours
Reading and Speaking.....	2 semester hours
Literature	18 semester hours
Electives	6 semester hours
Total.....	36

* This requirement does not hold in case of students who enter with two years of chemistry in the high school. Such students, with the advice and consent of the head of the Department of Chemistry, may elect advanced chemistry: or with the consent of the Dean may substitute some other subject. Students purposing to major in chemistry see Page 74 for requirements.

† Determined by choice of major and minor subjects.

For a minor in English 24 semester hours are required:

Composition and Rhetoric.....	10 semester hours
Reading and Speaking.....	2 semester hours
Literature	12 semester hours
Total.....	24

All students with a major or minor in English must complete English 1, Public Speaking 1, Advanced Composition and Rhetoric and History of English Literature by the end of the junior year.

Additional courses required in the major group are The Novel, English and American Essays, and The Drama or Shakespeare.

The Literature courses for the minor group must be chosen from among those specified as requirements for the major group.

History and Social Sciences. For a major in Social Studies, 30 semester hours are required as follows:

History	18 semester hours
Economics or Sociology	6 semester hours
*Electives	6 semester hours

All students with a major or minor in the Social Studies must finish Modern European History and American History by the end of the junior year.

Foreign Languages. The only foreign language for which supervised teaching is provided is French; therefore, students pursuing the Arts and Science Education Curriculum are limited to French as a foreign language major. For this major, 30 semester hours are required. Of these, 20 must be completed by the end of the junior year.

For a minor in any foreign language, 20 semester hours are required.

Mathematics. For a major in Mathematics 30 semester hours are required as follows:

College Algebra, Trigonometry, Analytics, and Calculus	20 semester hours
---	-------------------

(Above to be completed by the junior year)

Differential Equations	3 semester hours
Differential Geometry	3 semester hours
Electives	4 semester hours

For a minor in Mathematics, the 20 semester hours to be completed by end of the junior year.

Sciences. Both majors and minors are offered in Chemistry, Physics and the Biological Sciences. The minimum requirements for a major is 30 semester hours; for a minor, 20 semester hours. In case of a

* For a minor, the same requirements, less electives.

major not less than 20 semester hours must be completed by the end of the junior year.

In satisfaction of the regulation of the State Department of Education for certification in General High School Science, a major and minor are offered consisting of a combination of Chemistry, Physics, and the Biological Sciences. For a major a minimum of 34 semester hours are required which shall include the elementary courses in Chemistry, Physics, and Biology (Zoology and Botany) and ten additional hours elected from any of the three sciences. For a minor the requirements are 28 semester hours, the elementary courses as for the major and four hours of electives.

AGRICULTURAL EDUCATION

The objectives of the curriculum in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural educational service.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curriculum must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

The electives allowed by this curriculum may be selected from any of the courses offered by the University for which the student has the necessary prerequisites. A student is expected, however, to confine his elections to subjects relating to farming and to teaching. Though a certain amount of specialization in a particular field of agriculture such as animal husbandry, agronomy, pomology, vegetable gardening, agricultural economics, or farm management, is encouraged, students should arrange their work so that approximately forty per cent. of their time will have been spent on technical agriculture, twenty-five per cent. on scientific subjects, twenty per cent. on subjects of a general educational character, and from twelve to fifteen per cent. on subjects in professional education.

Students electing this curriculum may register either in the College of Education or the College of Agriculture. In either case they will register with the College of Education for the teacher's special diploma. The teacher's special diploma will be awarded only to those students who have fulfilled all of the requirements of this curriculum.

<i>Freshman Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Educational Guidance (Ed. 1).....	1	1
General Animal Husbandry (A. H. 1).....	3	—
Principles of Vegetable Culture (Hort. 11).....	—	3
General Chemistry (Chem. 1-A or 1-B).....	4	4
General Botany (Bot. 1).....	4	—
General Zoology (Zool. 1).....	—	4
Composition and Rhetoric (Eng. 1).....	3	3
Basic R. O. T. C. (M. I. 1).....	1	1

<i>Sophomore Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Public Education in the United States (Ed. 2).....	2	—
Diseases of Plants (Plt. Path. 1).....	3	—
General Entomology (Ent. 1).....	—	3
Field Crop Production (Agron. 1-2).....	3	3
Geology (Geol. 1).....	3	—
Principles of Soil Management (Soils 1).....	—	3
Feeds and Feeding (A. H. 2).....	3	—
Farm Dairying (D. H. 1).....	—	3
Elementary Pomology (Hort. 1).....	3	—
Principles of Economics (Economics 5-A).....	—	3
Basic R. O. T. C. (M. I. 2).....	2	2

<i>Junior Year</i>		
Educational Psychology (Ed. 101).....	3	—
Survey of Teaching Methods (Ag. Ed. 100).....	—	3
Public Speaking (Courses to be arranged).....	2	2
Farm Machinery (F. Mech. 101).....	3	—
Farm Shop (F. Mech. 104).....	1	—
Poultry (Poultry 101).....	—	3
Plant Physiology (Plt. Phy. 1).....	4	—
Bacteriology (Bact. 1).....	—	3
Agricultural Economics (A. E. 1).....	3	—
Marketing Farm Products (A. E. 102).....	—	3
Electives	2-5	2-5

<i>Senior Year</i>		
Teaching Secondary Vocational Agriculture (Ag. Ed. 101) ..	4	4
Educational Leadership in Rural Communities (Ag. Ed. 102) ..	—	3
Teaching Farm Shop in Secondary Schools (Ag. Ed. 104) ..	1	—
Principles of Secondary Education (Ed. 103).....	—	3
Farm Management (F. M. 2).....	4	—
Agricultural Statistics (Agron. 122).....	2	—
Expository Writing (Eng. 5).....	2	2
Electives	3-6	3-6

HOME ECONOMICS EDUCATION

The curriculum in Home Economics Education is designed primarily to prepare teachers of secondary vocational home economics under the terms of the Smith-Hughes Act. The curriculum includes scientific and cultural courses, the essential courses in the several subdivisions of home economics and the professional courses concerned with the specific preparation for teaching. Whatever phase of the general field of home economics the student wishes to enter, the curriculum provides the fundamentals and also prepares her for teaching and administration in that special part of the field.

Practical experience in home making and in the commercial applications of home economics are valuable additions to the equipment of the teacher. It is advised, therefore, that the student be employed, in the summer of her junior year, in some form of commercial work. This may be in a department store, dress-making establishment, hotel, bakery, tea-room or other business enterprise vitally related to home economics. The practice house course in the junior year supplements home training and helps to develop managerial ability.

The Teachers' Special Diploma will be awarded only to those students who have fulfilled all the requirements of this curriculum.

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1).....	3	3	
General Chemistry (Chem. 1).....	4	4	
Elements of Social Science (Soc. Sci. 1).....	3	3	
Educational Guidance (Ed. 1).....	1	1	
General Zoology (Zool. 1).....	4	—	
General Botany (Bot. 1).....	—	4	
Physical Education (Phys. Ed. 1).....	1	1	
	—	—	
	16	16	
<i>Sophomore Year</i>			
Special Applications of Chemistry.....	4	—	
*Special Applications of Physics (Phys. 1).....	—	4	
Elementary Foods (H. E. 31 y.).....	3	3	
Composition and Design (H. E. 21 f.).....	3	—	
Costume Design (H. E. 24 s.).....	—	3	
Elementary Textiles and Clothing (H. E. 11 s.).....	—	3	
Public Education in U. S. (Ed. 2).....	2	—	
Physical Education (Phys. Ed. 2).....	2	2	
Electives	3	2	
	—	—	
	17	17	
<i>Junior Year</i>			
Educational Psychology (Ed. 101).....	3	—	
Technique of Teaching (Ed. 104).....	—	3	
Household Bacteriology (Bact. 3).....	—	3	
Nutrition (H. E. 131-132).....	3	3	
Marketing and Buying (H. E. 143).....	2	—	
Pattern Designing and Dressmaking (H. E. 111 f.).....	4	—	
Education of Women.....	—	4	
Electives	5	4	
	—	—	
	17	17	

* For students who have not had High School Physics.

<i>Senior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Child Study (H. E. Ed. 102).....	5	—	
Management of the Home (H. E. 142 f.).....	5	—	
Teaching Voc. Home Economics; Methods and Practice (H. E. Ed. 101).....	3	3	
Home Architecture and Interior Decoration (H. E. 121)...	—	3	
Principles of Secondary Education (Ed. 103).....	—	3	
Electives	3	7	
	—	—	
	16	16	

INDUSTRIAL EDUCATION

Three types of curricula are offered in Industrial Education, viz., a four-year curriculum, a two-year curriculum, and a special curriculum.

Four-year Curriculum in Industrial Education.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the four-year curriculum in industrial education must be willing to engage in the trades or industries during the three summer vacations, if they have not had an equivalent experience in industry.

The elections allowed by this curriculum may be chosen from any of the courses offered in the University for which the student has the necessary prerequisite.

Two-year Curriculum in Industrial Education.

This curriculum is designed for mature students who have had considerable experience in some trade or industry.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent.

The curriculum is prescribed, but it is administered flexibly in order that it may be adjusted to the needs of students.

Special Courses for Teachers of Trades and Related Subjects.

To meet the needs for industrial teacher training in Baltimore and in other industrial centers, extension courses are offered. The work of these courses deals with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, organization, administration and supervision of industrial education, observation and practice of teaching, shop and classroom management, vocational psychology, vocational guidance, and history of the development of industrial education.

A special announcement of the extension courses will be issued in September, 1927, and may be obtained from the office of the Registrar either in Baltimore or in College Park.

COLLEGE OF ENGINEERING

A. N. JOHNSON, *Dean*.

Whether a man follows engineering as his life's work or enters other fields it is well recognized that the training received in the engineering colleges of today affords a splendid preparation for many callings in public and private life outside of the engineering profession.

The College of Engineering, which includes the Departments of Civil, Electrical, and Mechanical Engineering, has been reorganized. The general purpose has been to broaden the courses of instruction the better to prepare young men to enter the public service. The large public works program contemplated in practically every State in the Union makes urgent the demand for engineers trained for such work. The public service demands the electrical and mechanical as well as the civil engineer. Maryland needs such men to carry on her great highway work and large public undertakings contemplated in various cities and counties. Such training seems pre-eminently a function of the State's University.

The subject matter of the courses is not essentially different from that usually given, but the viewpoint of the student and the application of the principles are those of public service. In order to give the time necessary both to the technical subjects and to those of a more general character, a careful revision of all courses of study was made so that the time available in each semester may be used to the best advantage.

Beginning with the college year of 1921, a uniform curriculum was prescribed for all freshmen and sophomores in the College of Engineering. Among other advantages that accrue from such a change, is the very important one that a young man will not be called upon to decide the branch of engineering in which he will specialize until his junior year.

These changes necessitate a somewhat greater amount of preparation than formerly prescribed, and the hearty and sympathetic co-operation of the high schools of the State is asked that Maryland boys may be even better prepared for their university work to the end that they may be well qualified to enter on their life's work with the best possible university training.

Engineering research is recognized today as one of the most needed useful contributions that the engineering college can make to the State. Work of this character is under way at the University of Maryland, where, through co-operation with the Maryland State Roads Commission and the U. S. Bureau of Public Roads, highway research problems are being studied, the solution of which will prove of utmost value to the people of the State. It is planned to develop as rapidly as possible this phase of the work which will have, aside from its great economic value to the State, an important educational value due to the close contact the students will have with the live engineering problems of today.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, "Entrance."

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in Civil, Electrical and Mechanical Engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering is given to those students registered in the Graduate School, who hold bachelor degrees in engineering, prerequisite for which requires a similar amount of preparation and work as required for bachelor degrees in the Engineering College of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer or Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than three years.
2. His registration for a degree must be approved at least twelve months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
3. He shall present a satisfactory thesis on an approved subject.
4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical and Mechanical Engineering.

Equipment

The Engineering building is provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories and shops for all phases of engineering work.

Drafting-Rooms. The drafting-rooms are equipped for practical work. Engineering students must provide themselves with an approved drawing outfit, material and books, the cost of which during the freshman year amounts to about \$40.00.

Electrical Engineering Laboratory. The equipment includes many of the various types of direct current and alternating current generators and motors, rotary converter, distribution transformers, control apparatus and the measuring instruments essential to practical electrical testing. For experimental work, electrical power is obtained from engine driven units and a turbine generator; a storage battery is used for constant voltage-testing purposes.

Instruments are available for measuring the candle power of lamps and for the determination of illumination intensities. The standardizing laboratory apparatus includes primary and secondary standards used in calibrating laboratory instruments.

The telephone laboratory is equipped with apparatus for experimental work on magneto and common battery system. The radio apparatus is limited, at present, to receiving sets.

Mechanical Engineering Laboratory. The apparatus consists of Corliss and plain slide valve engines, steam turbine set, fans, pumps, indicators, gauges, feed water heaters, tachometers, injectors, flow meters, apparatus for determination of the B. T. U. in coal, gas and liquid fuels, pyrometers, draft gauges, planimeters, thermometers and other necessary apparatus and equipment for a mechanical laboratory.

Materials Laboratory. Apparatus and equipment are provided for making standard tests on various construction materials as steel, concrete, timber and brick.

Equipment includes two 100,000-pound universal testing machines, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

Highway Research Laboratory. Certain problems in highway research have been undertaken and are actively under way, being carried on in co-operation with the State Roads Commission and the U. S. Bureau of Public Roads.

A study of the traffic over the Maryland State Highway system is in progress and a preliminary traffic map has already been prepared.

A special investigation into the elastic properties of concrete is well under way, this work directly co-ordinating with the general program of research problems undertaken by the U. S. Bureau of Public Roads. In connection with this study, there have been taken over twenty-eight hundred samples in the past few summers from the concrete roads of the State, these samples consisting of cores which were cut from the road by a special core drill apparatus mounted upon a specially equipped truck. The results that have been obtained from the testing of these concrete cores will be studied in connection with the laboratory investigations which are being made upon the fatigue of concrete. The fatigue of concrete is being studied by means of a specially devised machine which was designed and built at the University laboratory.

Machine Shops and Foundry. The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge and foundry practice are provided for engineering students.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines and drill presses.

The foundry is provided with an iron cupola, a brass furnace and coke oven.

The shop equipment not only furnishes practice, drill and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying Equipment. Surveying equipment for plane, topographic and geodetic surveying is provided properly to equip several field parties. A wide variety of types of instruments is provided, including domestic as well as foreign makes.

Special Models and Specimens. A number of models illustrating various types of highway construction and highway bridges are available for students in this branch of engineering.

There has also been collected a wide variety of specimens of the more common minerals and rocks from various sections of the country, particularly from Maryland.

Library

Each department contains a well-selected library for reference and the standard engineering magazines.

The class work, particularly in the higher courses, requires that the students consult special books of reference and current technical literature.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are also expected to attend and take part in the meetings of the Engineering Society, Seminar, and engineering lectures.

Junior and senior students with requisite standing may elect additional hours not to exceed three hours a semester.

All members of the freshman engineering class are required to attend a series of twenty to twenty-five lectures a year, the speakers, for the most part, being other than engineers. Each student is required to hand in a very brief written summary of each lecture.

In addition to the requirements of the regular curricula, all students in the Engineering College are required, during each of the three summer vacations, to obtain employment in some line of commercial work, preferably that which relates to engineering. Unless the student can offer some adequate reason why he has not been so employed during at least two months of each of his summer vacation periods, it may be considered sufficient cause for withholding his degree.

The proximity of the University to Baltimore and Washington, and to other places where there are great industrial enterprises, offers an

excellent opportunity for engineering students to observe what is being done in their chosen field. An instructor accompanies students on all trips of inspection.

The same program is required of all students in engineering in the Freshman and Sophomore years.

<i>Freshman Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1).....	3	3
Elements of Social Science (Soc. Sci. 1).....	3	3
Oral English (P. S. 1).....	1	1
Freshman Mathematics (Math. 3 f. and 4 s.).....	5	5
General Chemistry (Chem. 1).....	4	4
Engineering Drafting (Dr. 1).....	1	1
Shop and Forge Practice (Shop 1).....	1	1
Basic R. O. T. C. (M. I. 1).....	1	1
Engineering Lectures	—	—
<i>Sophomore Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Oral English (P. S. 3).....	1	1
*Modern Language (Adv. Course).....	3	3
*Modern (European History) (Hist. 1y.).....	3	3
Sophomore Mathematics (Math. 7 y.).....	5	5
Physics (Phys. 2).....	5	5
Descriptive Geometry (Dr. 2).....	2	2
Machine Shop Practice (Shop 2-3) M. & E.....	1	2
Civil	1	—
Basic R. O. T. C. (M. I. 2).....	2	2
Plane Surveying (Surv. 1-2) M. & E.....	1	—
Civil	1	2
Engineering Lectures	—	—

* Alternatives.

CIVIL ENGINEERING

<i>Junior Year</i>		
*Principles of Economics (Econ. 5 Ef).....	3	—
*Oral English (P. S. 4).....	1	1
*Engineering Geology (Engr. 2).....	1	1
*Engineering Mechanics (Mech. 2).....	5	4
*Prime Movers (Engr. 1).....	2	2
Design Steel Structures, Elements (C. E. 102).....	—	5
*Materials of Engineering (Mech. 3).....	—	2
Advanced Surveying (Surv. 3).....	3	—
Railroad, Elements of (C. E. 101).....	3	—
Engineering Lectures	—	—
*Railway Transportation (Econ. 121 s.).....	—	3

<i>Senior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
*Oral English (P. S. 9y.).....	1	1
*Engineering Jurisprudence (Engr. 101).....	1	—
*Public Utilities (Engr. 3).....	—	1
*Engineering Chemistry (Chem. 111y.).....	1	1
§Sanitary Bacteriology (Bact. 4).....	—	1
Highways (C. E. 106).....	4	4
Design-Masonry Structures (C. E. 105).....	4	4
Design-Steel Structures (C. E. 104).....	3	3
Sanitation (C. E. 107).....	3	3
†Railroads (C. E. 108).....	1	1
†Sanitary Science (Public Health) (C. E. 109).....	1	1
†Drainage and Irrigation (C. E. 110).....	1	1
Engineering Lectures	—	—

* Required of all engineering students.

§ Taken concurrently with C. E. 109 in place of Chem. 27, second semester.

† Alternatives.

ELECTRICAL ENGINEERING

<i>Junior Year</i>		
*Principles of Economics (Econ. 5 Ef).....	3	—
*Railway Transportation (Econ. 121 s.).....	—	3
*Oral English (P. S. 4y.).....	1	1
*Engineering Geology (Engr. 2).....	1	1
*Engineering Mechanics (Mech. 1).....	4	3
*Materials of Engineering (Mech. 3).....	—	2
Design-Machine Elements (M. E. 101).....	1	—
Direct Currents (E. E. 102).....	5	5
*Prime Movers (Engr. 1).....	2	2
Design-Electric Machine (E. E. 103).....	1	1
Engineering Lectures	—	—

<i>Senior Year</i>		
*Oral English (P. S. 5 y.).....	1	1
*Engineering Jurisprudence (Engr. 101).....	1	—
*Public Utilities (Engr. 3).....	—	1
*Engineering Chemistry (Chem. 111y.).....	1	1
Alternating Currents (E. E. 104).....	5	5
Design-Electric Machine (E. E. 105).....	1	2
†Electric Railways and Electric Power Transmission (E. E. 106).....	3	4
†Telephones and Telegraphs (E. E. 107).....	3	4
†Radio Telephony and Telegraphy (E. E. 108).....	3	4
†Illumination (E. E. 109).....	3	—
Thermodynamics (Mech. 101).....	3	—
Engineering Lectures	—	—

* Required of all engineering students.

† Select two.

MECHANICAL ENGINEERING

	Semester	
	I	II
<i>Junior Year</i>		
*Principles of Economics (Econ. 5 ef.).....	3	—
*Railway Transportation (Econ. 121 s.).....	—	3
*Oral English (P. S. 4 y.).....	1	1
*Engineering Geology (Engr. 2).....	1	1
*Engineering Mechanics (Mech. 1).....	4	3
*Materials of Engineering (Mech. 3).....	—	2
Foundry Practice (Shop 4).....	1	—
Design-Machine, Elements (M. E. 102).....	3	2
*Prime Movers (Engr. 1).....	2	2
Kinematics (Mech. 4).....	3	—
Design-Steel Structures (C. E. 103).....	—	2
Heating and Ventilation (M. E. 108).....	—	2
Engineering Lectures	—	—
<i>Senior Year</i>		
*Oral English (P. S. 5 y.).....	1	1
*Engineering Jurisprudence (Engr. 101).....	1	—
*Public Utilities (Engr. 3).....	—	1
*Engineering Chemistry (Chem. 111 y.).....	1	1
Design-Prime Movers (M. E. 103).....	3	3
Design-Power Plants (M. E. 104).....	—	3
Design-Pumping Machinery (M. E. 105).....	2	—
Thermodynamics (Mech. 102).....	3	3
Physical Chemistry (Chem. 10 y.).....	3	3
Engineering Finance (M. E. 106).....	—	2
Mechanical Laboratory (M. E. 107).....	1	1
Industrial Application of Electricity (E. E. 101).....	3	—
Engineering Lectures	—	—

* Required of all engineering students.

COLLEGE OF HOME ECONOMICS

M. MARIE MOUNT, *Dean*.

The home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of the facts and principles of Home Economics without specializing in any one phase of Home Economics; (2) those students who wish to teach Home Economics in schools or to become Extension Specialists in Home Economics; (3) those who are interested in certain phases of Home Economics with the intention of becoming dietitians, restaurant and cafeteria managers, textile specialists, clothing designers, buyers of clothing in department stores, demonstrators for commercial firms and other similar positions.

Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition, Textiles and Clothing and Home and Institutional Management.

Equipment

In addition to the usual classroom and laboratory facilities, the college maintains a well-equipped home management house in which the students will keep house for a period of six weeks during either their junior or senior year.

Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 132 semester hours.

In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B or C.

Prescribed Curricula

All students registered in the College of Home Economics are required to take the same work during the first two years. At the beginning of the junior year a student may continue with the General Home Economics Curriculum, or elect one of the following special curricula, or a combination of curricula. A student who wishes to teach Home Economics may register in Home Economics Education, in the College of Education (see Home Economics Education) at the beginning of the Junior Year.

Following are the outlines of the curricula for General Home Economics, Textiles and Clothing, Foods, Home Economics Extension and Institutional Management.

GENERAL HOME ECONOMICS

<i>Freshman Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Composition and Rhetoric (Eng. 1).....	3	3	
General Chemistry (Chem. 1).....	4	4	
*Language (Lang. 1).....	4	4	
Elements of Social Science (Soc. Sci. 1).....	3	3	
Home Economics Lectures (H.E. 1 y.).....	1	1	
Physical Education (Phy. Ed. 1).....	1	1	
Public Speaking (P. S. 1).....	1	1	
	—	—	
	17	17	
<i>Sophomore Year</i>			
Elements of Organic Chemistry (Chem. 12 f.).....	4	—	
Elementary Foods (H. E. 31 y.).....	3	3	
Composition and Design (H. E. 21 f.).....	3	—	
Costume Design (H. E. 24 s.).....	—	3	
Elementary Textiles and Clothing (H. E. 11 s.).....	—	3	
Public Education in the United States (Ed. 2).....	2	—	
Physical Education (Phys. Ed. 2).....	2	2	
Language or Elective	3	6	
	—	—	
	17	17	
<i>Junior Year</i>			
Household Bacteriology (Bact. 3).....	—	3	
Nutrition (H. E. 131-132).....	3	3	
Marketing and Buying (H. E. 143).....	2	—	
Pattern Designing and Dressmaking (H. E. 111 f.).....	4	—	
Special Applications of Physics (Physics 1).....	—	4	
†Science	3-4	—	
Electives	5-4	7	
	—	—	
	17	17	
<i>Senior Year</i>			
Child Study (H. E. Ed. 102).....	5	—	
Management of the Home (H. E. 142 f.).....	5	—	
Choice of one other unit of Practice Work.....	5	—	
Home Architecture and Interior Decoration (H. E. 121)...	—	3	
Electives	—	12	
	—	—	
	15	15	

* This requirement may be waived for students entering college with three or more years of a language.

† Choice of General Zoology: Botany: Chemistry of Textiles: Chemistry of Foods.

TEXTILE AND CLOTHING CURRICULUM

<i>Junior Year</i>		<i>Semester</i>	
		<i>I</i>	<i>II</i>
Household Bacteriology (Bact. 3).....	—	3	
Special Applications of Physics (Physics 1).....	—	4	
Nutrition (H. E. 131).....	3	—	
Pattern Designing and Dressmaking (H. E. 111 f.)...	4	—	
Chemistry of Textiles (Chem. 14 s.).....	—	4	
Millinery (H. E. 113).....	2	—	
Electives	8	6	
	—	—	
	17	17	
<i>Senior Year</i>			
Management of the Home (H. E. 142).....	5	—	
Child Study (H. E. Ed. 102).....	5	—	
Practice in Textile and Clothing Problems (H. E. 114 f.)..	5	—	
Home Architecture and Interior Decoration (H. E. 121)...	—	3	
Advanced Clothing (H. E. 112).....	—	3	
Electives	—	9	
	—	—	
	15	15	

FOODS CURRICULUM

<i>Junior Year</i>			
Household Bacteriology (Bact. 3).....	—	3	
Special Applications of Physics (Physics 1).....	—	4	
Nutrition (H. E. 131-132).....	3	3	
Marketing and Buying (H. E. 143).....	2	—	
Chemistry of Foods (Chem. 15 f.).....	4	—	
Preservation and Demonstration (H. E. 133).....	2	—	
Electives	6	7	
	—	—	
	17	17	
<i>Senior Year</i>			
Child Study (H. E. Ed. 102).....	5	—	
Management of the Home (H. E. 142 f.).....	5	—	
Choice of one other unit of Practice Work as: Field Practice with Home Demonstration Agent, Practice in Institutional Problems, Special Food Research, etc....	5	—	
Home Architecture and Interior Decoration (H. E. 121)...	—	3	
Advanced Foods (H. E. 134).....	—	3	
Seminar (H. E. 101 s.).....	—	3	
Electives	—	6	
	—	—	
	15	15	

INSTITUTIONAL MANAGEMENT CURRICULUM

<i>Junior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Household Bacteriology (Bact. 3).....	—	3
Special Applications of Physics (Physics 1).....	—	4
Nutrition (H. E. 131-132).....	3	3
Marketing and Buying (H. E. 143).....	2	—
Institutional Management (H. E. 144).....	3	3
Electives	9	4
	17	17
<i>Senior Year</i>		
Management of the Home (H. E. 142).....	5	—
Child Study (H. E. Ed. 102).....	5	—
Practice in Institutional Management (H. E. 145).....	5	—
Advanced Institutional Management (H. E. 146).....	—	3
Home Architecture and Interior Decoration (H. E. 121)...	—	3
Electives	—	9
	15	15

HOME ECONOMICS EXTENSION CURRICULUM

<i>Junior Year</i>		
Nutrition (H. E. 131).....	3	—
Marketing and Buying (H. E. 143).....	2	—
Household Bacteriology (Bact. 3).....	—	3
Special Applications of Physics (Physics 1).....	—	4
Educational Psychology (Ed. 103).....	3	—
Preservation and Demonstration (H. E. 133).....	2	—
Technique of Teaching (Ed. 104).....	—	3
Elective Science	3-4	—
Electives	4-3	7
	17	17
<i>Senior Year</i>		
Child Study (H. E. Ed. 102).....	5	—
Management of the Home (H. E. 142).....	5	—
Field Practice in Home Economics Extension (H. E. 151)...	5	—
Home Architecture and Interior Decoration (H. E. 121)...	—	3
Educational Leadership in Rural Communities (Ag. Ed. 102).....	—	3
Objectives and Methods in Extension Education (Ag. Ed. 103).....	—	3
Electives	—	6
	15	15

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean*.

Graduate work is offered, under the supervision of the Dean of the Graduate School, by competent members of the various faculties of instruction and research. These constitute the faculty of the Graduate School.

The general administrative functions of the faculty are delegated to the Dean and Secretary of the School and a Graduate Council.

Work in accredited research laboratories of the U. S. Department of Agriculture and other local national research agencies may be accepted, when previously arranged, as work in residence for part of the requirement. These laboratories are located in easy reach of the University.

Admission to Graduate School

Graduates of colleges and universities of good standing are admitted to the Graduate School. Before entering upon graduate work all applicants must present evidence that they are qualified by their previous work to pursue with profit the graduate courses desired. Application blanks for admission to the Graduate School are obtained from the office of the Dean. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits the student to register in the Graduate School. After payment of the fees the matriculation card is stamped and returned to the student. It is the student's certificate of membership in the Graduate School and may be called for at any succeeding registration.

All applicants for graduate study in the University must matriculate in the Graduate School even though they are not candidates for higher degrees. This includes the members of the summer session.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.

Registration

All students pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register in the office of the Dean of the Graduate School at the beginning of each semester. Students taking graduate work in the summer school are also required to register in the Graduate School at the beginning of each session. The program of work for the semester or summer session is entered upon three course cards which are first signed by the professor in charge of the student's major subject and then by the Dean of the Graduate School. Two cards are retained in the office of the Graduate School. One is filed for record and the other returned to the professor

in charge of the student's major subject. The student takes the third card and, in case of new students, also the matriculation card, to the Registrar's office, where a charge slip for the fee is issued. The charge slip, together with the course card, are presented at the office of the Financial Secretary for adjustment of fees. After certification by the Financial Secretary, class cards are issued by the Registrar. Students will not be admitted to graduate courses without class cards. Course cards may be obtained at the Registrar's office or from the secretary in the Dean's office. The heads of departments usually keep a supply of these cards in their office.

Credits

Classification in courses carrying full graduate credit is ordinarily limited to a maximum of thirty credit hours for the year. Exceptions to this rule must have the approval of the Dean and will only be allowed when the student has made a grade of "B" or better in all of the courses of the previous semester. No exception to the rule will be made in case of students holding \$500 fellowships on a nine months basis. On the recommendation of the student's adviser, these fellowships may carry more than fifteen credits for one semester of the year, if the normal load of the other semester is correspondingly reduced. Students holding graduate assistantships are usually limited to eight credit hours per semester. One or two extra credits may be allowed if four or five of the total constitute Seminar and Research work.

Admission to Candidacy for Advanced Degrees

Applications for admission to candidacy for either the Master's or the Doctor's degrees are made on application blanks, which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate and first approved by the professor in charge of the major subject, after consultation with the professors in charge of the minor subjects, before they are acted upon by the Graduate Council. An official transcript of the student's undergraduate record and a statement of the graduate courses which the student has completed at other institutions must accompany the applications unless these are already on file in the Dean's office. This statement must be issued by the Dean, Registrar, or other officer of the Graduate School in which the work was done.

A student making application for admission to candidacy for the degree of Doctor of Philosophy must also obtain from the head of the Modern Language department, a statement that he possesses a reading knowledge of French and German.

The subject of the Master's thesis or the Doctor's dissertation must appear on the application.

Each candidate for the Master's degree is required to make application for admission to candidacy not later than the first week of the second semester of the academic year in which the degree is sought, but not until at least the equivalent of one semester's work has been completed.

Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications of these candidates must be on file in the office of the Graduate School not later than October 1 of the same year.

The admission of a student to candidacy in no case assures the candidate of a degree, but merely indicates that he has fulfilled all of the preliminary requirements and, in the judgment of his professors and the Graduate Council, possesses the ability to continue the type of work required for the degree sought.

Requirements for the Master's Degree

The degree of Master of Science, Master of Arts or Master of Science in Engineering, will be conferred upon resident graduates who meet the following requirements:

1. The prospective candidate is required to make application for admission to candidacy as prescribed under that heading.
2. The candidate must have received the Bachelor's degree from a college or university of sufficiently high standing and must have the necessary prerequisites for the field of advanced work chosen.
3. During a period of at least one academic year, the student must pursue a course of approved graduate study. Such a course is equivalent to 30 semester credits, including a thesis approved by a committee of the faculty. From 10 to 12 credits must lie outside the major subject and form a coherent group of courses intended to supplement and support the major work. At least 18 credits, including the thesis credits, must be devoted to the major subject. The number of major credits allowed for thesis work will range from 6 to 10, depending upon the amount of work done and upon the course requirements in the major subject. The maximum credit for the one hour per week seminar courses is limited to four semester hours in the major subject and to two semester hours in the minor subjects. Graduate students must elect courses designated in the catalogue "For Graduates" or "For Advanced Undergraduates and Graduates." In special cases a student may, with the approval of the professor in charge of the major subject and the Dean, elect for graduate credit one or two courses not listed for graduates. For such courses, only partial graduate credit will be allowed or extra work will be required for full graduate credit.
4. The thesis required for the Master's degree should be typewritten on a good quality of paper 11 x 8½ inches in size and one copy bound in a special cover, obtained at the book store. This copy must be filed in the office of the Graduate School not later than two weeks before commencement.
5. The candidate must pass a final oral examination on all graduate work, including the thesis.

Doctor of Philosophy

1. Prerequisites for admission to candidacy for the Doctor's degree. The candidate must be a graduate of a standard college, must have a reading knowledge of French and German, and the necessary basic training in the chosen field for advanced work.
2. Three years of graduate study will usually be required. The first two of these years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship and ability to carry on independent research in the special field in which the major work is done.
3. The candidate must select a major and one or two closely related minor subjects, constituting a single field of research.
4. The candidate must present a dissertation within the field of research selected. This must be in the hands of the Dean of the Graduate School in printed or typewritten form at least two weeks before the time at which degrees are granted.
5. The candidate must pass a final oral examination in the major and minor subjects. The examination will be given by a committee appointed by the Dean.

Advanced Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer or Mechanical Engineer will be granted only to graduates of this University who have obtained a Bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have been engaged successfully in acceptable engineering work for three years.
2. His registration for a degree must be approved at least 12 months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
3. He shall present a satisfactory thesis on an approved subject.
4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical and Mechanical Engineering.

Graduate Fees

Each graduate student is subject to a matriculation fee of \$10.00, a fixed charge of \$1.50 per semester credit and a diploma fee of \$10.00.

Graduate Work in the Summer

Work done in the Summer Session of the University under the rules and regulations of the Graduate School may be counted as residence toward a graduate degree.

Students taking their major work in the field of Education may satisfy the requirements for the Master's degree by attending the Summer School for four summers and submitting a satisfactory thesis.

Fellowships and Graduate Assistantships

A number of fellowships and graduate assistantships have been established by the University. They are open to graduates of standard colleges and universities. All applications for both fellowships and graduate assistantships should be filed with the Dean of the Graduate School not later than May 15 of each year. Blanks for this purpose may be obtained from the office of the Graduate School. Applications must be accompanied by sufficient evidence of necessary training and ability to pursue with profit the graduate work desired. Such evidence will include testimonials from instructors and an official transcript of the undergraduate work.

The fellowships are worth \$500, and it is possible for a fellow to complete the requirements for the Master's degree in one academic year. In certain cases fellows may be required to spend two or three summer months in addition to the nine months of the college year. Each fellow is expected to give a limited portion of his time to instruction or perform equivalent prescribed duties for his major department.

The stipend attached to the graduate assistantships is \$1,000 per annum and the appointments are made for twelve months, with one month's vacation. The minimum time required for the Master's degree is two years, since one-half of the assistant's time is devoted to instruction or research. Several \$1,000 research assistantships are offered by the Experiment Station and the service required is in connection with research projects. Graduate students holding appointments as fellows or graduate assistants are exempt from all fees except the diploma fee and laboratory fees in certain minor courses.

SUMMER SCHOOL

WILLARD S. SMALL, *Director.*

A summer session of six weeks is conducted at College Park. The program is designed to serve the needs of three classes of students; teachers and supervisors of the several classes of school work—elementary, secondary and vocational; special students, as farmers, breeders, dairymen, home makers, chemists, public speakers, graduate students; and students who are candidates for degrees in agriculture, arts and science, education, engineering and home economics.

Terms of Admission

Teachers and special students not seeking a degree are admitted without examination to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer School.

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. During the summer session a lecture course meeting five times a week for six weeks requiring the standard amount of outside work, is given a weight of two semester hours.

Educational courses satisfactorily completed will be credited by the State Superintendent of Schools towards meeting the minimum requirements of professional preparation as follows:

- (1) For teaching in the elementary schools of the State, including renewal of certificates and advancing the grade of certificates.
- (2) For teaching in high schools of the State and for renewal of high school certificates.
- (3) For teaching vocational agricultural and home economics and for renewal of vocational teachers' certificates.
- (4) For high school principalships.
- (5) For supervisorships.

Summer Graduate Work

Special arrangements have been made for persons wishing to do graduate work in summer. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements and proceed in the same way as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session consult the special Summer School announcement issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

ROBERT S. LYTLE, *Major Infantry (D.O.L.), U. S. Army, Professor*

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

Object

The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions for the purpose of qualifying selected students of such institutions as reserve officers in the military forces of the United States. It is intended to attain this object during the time the students are pursuing their general or professional studies with the least practical interference with their civil careers, by employing methods designed to fit men, physically, mentally and morally for pursuits of peace as well as pursuits of war. It is believed that such military training will aid greatly in the development of better citizens.

Required to Take Instruction

All male students, if citizens of the United States, whose bodily condition indicates that they are physically fit to perform military duty or will be upon arrival at military age, whether pursuing a four-year or a two-year course of study, are required to take for a period of two years, as a prerequisite to graduation, the military training offered by the War Department.

Advanced Work

Students who complete the basic course satisfactorily and who are recommended by the Professor of Military Science and Tactics, and whose application is approved by the President, may continue their military training for a period of two years in the Advanced Course.

Time Allotted

For first and second year, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced courses, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part in military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus co-operating in an effort to promote a vigorous manhood. Special effort is made by corrective training to improve the physical condition of students needing such training.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniforms at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President.

Uniforms, or commutation in lieu of uniforms for the Reserve Officers' Training Corps, will be furnished free by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features, or if commutation of uniforms is furnished, then such uniform as may be adopted by the University. Such uniforms must be kept in good condition by the student. They remain the property of the Government and, though intended primarily for use in connection with military instruction, may be worn at any other time unless the regulations governing their use are violated. The uniform cannot be worn in part. Uniforms which are furnished by the Government will be returned to the Military Department at the end of the year or before, if the student leaves the University. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the students upon completion of two years' work.

Commutation

Those students who elect the advanced course and who have signed the contract with the Government to continue in the Reserve Officers' Training Corps for the two remaining years of the advanced course are entitled to a small per diem money allowance payable quarterly from and including the date of contract until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country camps are held for a period not exceeding six weeks for students who are members of the Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for those students who are taking the advanced course which has been previously stated is elective.

The students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Quarters and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid seventy cents (\$0.70) for each day spent in camp.

Commissions

(a) Each year upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) This University has been designated by the War Department annually for several consecutive years as a "Distinguished College." This designation indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order.

This classification also permits the Professor of Military Science and Tactics to designate an Honor Graduate from the members of the second year Advanced Course, who may be commissioned as Second Lieutenant of Infantry in the Regular Army, if he so desires, by passing the required physical examination. This designation as Honor Graduate to exempt the individual selected from all academic examinations usually required for a Regular Army Commission.

The acceptance of this opportunity is, of course, optional with the student.

Credits

Military instruction at this University is on a par with other university work and the requirements of this department as to proficiency the same as with other departments.

Those students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

DEPARTMENT OF PHYSICAL EDUCATION AND RECREATION

The Department of Physical Education and Recreation, in co-operation with the Military Department, controls all physical training and intramural and intercollegiate athletics. As far as possible the work along all these lines is co-ordinated with a view to having each student in the institution engage in some form of exercise best suited to his particular case.

The work at present reaches all students either through the military exercises, through intramural sports, through intercollegiate athletics, or through the special work given to those not particularly fitted for any of these forms. At the beginning of the year a physical examination is given the students, especial attention being paid to the members of the freshman class. All members of the freshman and sophomore classes who are physically sound take part in the military drills and exercises. To meet the particular needs of freshmen and sophomores who do not qualify physically for military training, special programs of setting-up exercises and drills are devised.

Physical Education beyond the freshman and sophomore classes is not compulsory, but the military work is continued by many. Those who do not engage in it are offered opportunity to play tennis, engage in intramural games, or take part in some other form of competitive sport. All students have opportunities to become members of the squads playing in intercollegiate athletics. With the exception possibly of a few members of the junior and senior classes, the University is reaching all its students with some form of developmental physical exercise. A modern gymnasium, two athletic fields, and tennis courts offer excellent facilities.

SCHOOL OF BUSINESS ADMINISTRATION

The School of Business Administration as a separate unit in the University organization was discontinued at the end of the academic year 1925-1926. The crowded condition of the University buildings in Baltimore, by reason of the increase in the student body in the other professional schools, made it inadvisable to continue the work of this School.

A curriculum in Business Administration is available in the Department of Economics and Sociology in the College of Arts and Sciences at College Park for students desiring full-time day work, leading to the degree of Bachelor of Science or Bachelor of Arts. (See Page 82.)

For evening students in the City of Baltimore arrangements were made with the Johns Hopkins University whereby matriculated students in the School of Business Administration of the University of Maryland, who, by the end of the academic year 1925-1926, had completed at least two years of college work, might, by offering the requisite number of points, obtain the degree of Bachelor of Science in Business from the University of Maryland. The additional points required for this purpose are to be obtained through the satisfactory completion of courses in the College for Teachers or the Evening Courses in Business Economics of the Johns Hopkins University and certification to the Registrar of the University of Maryland to that effect.

For students who had completed less than two years of college work by June, 1926, in the University of Maryland, the opportunity of obtaining the degree of Bachelor of Science is available through the College for Teachers of the Johns Hopkins University by meeting the usual requirements of that College for matriculation and completion of courses.

The opportunity of obtaining the degree of Bachelor of Science from the Johns Hopkins University through the College for Teachers is likewise open, upon the same conditions as mentioned in the preceding paragraph, to students who have completed two years' work or more at the University of Maryland. It is expected, however, that such students will do at least their last year's work at the Johns Hopkins University.

Completion of Degree Requirements

Students who had matriculated for the degree of Bachelor of Business Administration prior to September, 1925, and others who had enrolled for the degree of Bachelor of Science in Business prior to June, 1926, and who had completed at least two years or 62 semester hours of college work by June, 1926, will have until June, 1929, to complete the requirements of the above degrees. Students expecting to

complete the requirements in the Johns Hopkins classes and to apply credit thus obtained to a University of Maryland degree must do so prior to that date.

Correspondence regarding the completion of the programs worked out in May, 1926, should be addressed to the Executive Dean of the University. When the requirements for the above degrees shall have been completed, all credits toward the same must be duly certified through the Registrar to the Executive Dean of the University for his approval.

SCHOOL OF DENTISTRY

J. BEN ROBINSON, *Dean.*

J. BEN ROBINSON, D.D.S., F.A.C.D.

GEORGE M. ANDERSON, D. D. S.

ROBERT P. BAY, M.D.

JOSE A. DAVILA, D.D.S.

HORACE M. DAVIS, D.D.S.

OREN H. GAVER, D.D.S.

EDWARD HOFFMEISTER, A.B., D.D.S.

BURT B. IDE, D.D.S.

HOWARD J. MALDEIS, M.D.

ROBERT L. MITCHELL, Phar. G., M.D.

ALEXANDER H. PATERSON, D.D.S., F.A.C.D.

The University of Maryland was created by an act of the Maryland Legislature, December 18th, 1807, for the purpose of offering a course of instruction in medical science. There were at that period but four medical schools in America—the University of Pennsylvania, founded in 1765; Harvard University, in 1782; Dartmouth College, in 1798, and the College of Physicians and Surgeons of New York, May, 1807.

The first lectures delivered on Dentistry in America were given by Horace H. Hayden, M. D., at the University of Maryland in the year 1837. A movement was started at that time to create a department of dentistry and application was made to the Regents of the University for permission to establish such work in connection with the School of Medicine. This request being refused, a charter was applied for and granted in 1840, establishing the Baltimore College of Dental Surgery, the first dental school in the world. Lectures were begun in 1840, and the first class graduated in 1841. In 1873 the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized, and continued instruction in dental subjects until 1879, when it was consolidated with the Baltimore College of Dental Surgery.

A department of dentistry was organized at the University of Maryland in the year 1882, graduating its first class in 1883 and each subsequent year to the merger—June, 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the University of Maryland School of Dentistry and the Baltimore College of Dental Surgery, continuing the latter as the Dental School of the University of Maryland.

Thus we find in the present Dental School of the University of Maryland a grouping and concentration of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the potential strength of the alumni is second to none either in numbers or degree of service to the profession.

Requirements for Matriculation

The School of Dentistry is a member in good standing of the American Association of Dental Schools and conforms to the rules and regulations of that body.

The present requirement for matriculation in the School of Dentistry is graduation from an accredited high school with fifteen units of credit. This requirement will admit students to the five-year course in dentistry, now being required.

Applicants for matriculation must present their credentials for verification to the Registrar of the University of Maryland, Baltimore, Maryland. A blank form for submitting credentials may be had by applying to the Dean of the Dental School. The blank must be filled out in full as indicated by various items of the form, signed by the prospective dental student and returned to the Registrar's office with \$2.00 investigation fee.

Length of Course

A five-year course of instruction is offered. The many apparent advantages in the consecutive five years of professional study over the one year of college work and four years of dentistry, or the two years of college work and three years of dentistry, offered by most dental schools, has influenced the adoption of the five-year plan. Admission to advanced standing may be secured by offering acceptable college credits for academic requirements appearing in the first year.

Advanced Standing

Applicants showing in addition to high school requirements, college credits of equal value in courses contained in the dental curriculum may receive advanced credits on those subjects. Thirty semester hours of college credit entitles the applicant to second-year rating, with the opportunity to complete the course in four years, provided his college record shows the following to the credit of the applicant:

Inorganic Chemistry	8 hours
Zoology	8 hours
Mathematics	6 hours
English	6 hours

Graduates from reputable and accredited colleges and universities, or at least two years completed work from Class A medical schools, will be given advanced credit in completed subjects and advanced standing in the course.

A student who desires to transfer to this school from another recognized dental school must present credentials, signed by the Dean, Sec-

retary or Registrar of the school from which he is transferring. No student who has incurred a condition or a failure in any subject at the school from which he desires to transfer will be accepted. The transferring student must furnish evidence that he is in possession of proper high school credits.

Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the Regular Session opens, at which time lectures in all classes begin, and remain until the close of the session, the dates for which are announced in the Calendar.

In case of serious personal illness as attested by a physician, a student may register not later than the twentieth day following the advertised opening of the Regular Session. Students may register and enter not later than ten days after the beginning of the session, but such delinquency will be charged as absence from class.

In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than a minimum of eighty-five per cent. attendance will not be promoted to the next succeeding class. Regular attendance is demanded of all students. This rule will be rigidly enforced.

Promotion

In order that credit be given in any subject a grade of 75 per cent. must be earned. A student to be promoted to the next succeeding year must have passed courses amounting to at least 80 per cent. of the total scheduled hours of the year.

A grade between 60 per cent. and passing mark is a *condition*. A grade below 60 per cent. is a *failure*. A condition may be removed by an examination. In such effort inability to make a passing mark is considered a *failure*. A failure can only be removed by repeating the course. A student with combined conditions and failures amounting to 40 per cent. of the scheduled hours of the year will be required to repeat his year. Students who are required to repeat courses must pay regular fees.

Equipment

A complete list of all necessary instruments and materials for technic and clinic courses and textbooks for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course and present same to responsible class officer for inspection. No student will be permitted to go on with his class who does not meet this requirement.

Deportment

The profession of dentistry demands, and the School of Dentistry requires evidence of good moral character of its students. The conduct of the student in relation to his work and fellow-students will indicate his fitness to be taken into the confidence of the community as a profes-

Expenses

sional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority and associates, honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to granting of degree.

Requirement for Graduation

The degree of Doctor of Dental Surgery is conferred upon the completion of the five-year course of study, each year to consist of thirty-two weeks, and each week to consist of six days of school work. The candidate must be twenty-one years of age and must possess a good moral character, and must have passed in all branches of the curriculum.

Matriculation fee (paid only once)	\$ 10.00
Tuition, resident student	200.00
Tuition, non-resident student	250.00
Dissecting fee (paid only once)	15.00
Laboratory fee	20.00
Graduation fee	10.00

Matriculation fee must be paid when registration card is issued. Tuition fee may be paid one-half October first and one-half February first. Dissecting fee must be paid to secure class card for admission to clinics. Laboratory fee must be paid at the beginning of the session. Graduation fee must be paid on May first.

All students of the several classes will be required to obtain a card of registration at the office of the Registrar, pay to the Comptroller one-half of the tuition fee, and full amount of laboratory fee before being regularly admitted to class work. The balance of tuition and other incidental fees must be in the hands of the Comptroller on February 1st, before beginning work of the second semester.

According to the policy of the School of Dentistry no fees will be returned. In case the student discontinues his course any fees paid will be credited to a subsequent course, but are not transferable.

These requirements will be rigidly enforced.

Students may matriculate by mail by sending amount of fee to W. M. Hillegeist, Registrar, University of Maryland, Lombard and Greene Streets, Baltimore, Md.

THE SCHOOL OF LAW

HENRY D. HARLAN, *Dean*.

THE FACULTY COUNCIL

HON. HENRY D. HARLAN, A.M., LL.B., LL.D.
 HON. JOHN C. ROSE, LL.B., LL.D.
 RANDOLPH BARTON, JR., ESQ., A.B., LL.B.
 EDWIN T. DICKERSON, ESQ., A.M., LL.B.
 CHARLES MCHENRY HOWARD, ESQ., A.B., LL.B.
 HON. MORRIS A. SOPER, A.B., LL.B.
 ROBERT H. FREEMAN, A.M., LL.B.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. This was suspended in 1836 for lack of proper pecuniary support. In 1869 the Law School was organized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive and the staff of instructors increased in number. Its graduates now number more than two thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School Building adjoins the Medical School, and part of its equipment is a large library maintained for the use of the students, which contains carefully selected text-books on the various subjects embraced in the curriculum, reports of American and English courts, digests and standard encyclopedias. No fee is charged for the use of the library. Other libraries also are available for students.

Course of Instruction

The Law School is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same in each school.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours.

The Evening School course covers a period of four years of forty weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the Law School is designed to thoroughly equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, the statute law of Maryland, and the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

Requirements for Admission

Students entering in the fall of 1927 as applicants for a degree shall be required to produce evidence of the completion of at least two years of college work, or such work as would be accepted for admission to the third or junior year in the College of Liberal Arts of an accredited college or university in this State.

Special Students—A limited number of students applying for entrance with less than the academic credit required of candidates for the law degree, who are over twenty-one years of age, and who, in the opinion of the Faculty Council, possess special qualifications for the study of law, may be admitted as candidates for the certificate of the school, but not for the degree.

Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University of Maryland offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the Law School, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the University of Maryland, College Park, Md., or by reference to page 86.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in an accredited law school, may, upon presentation of a certificate from such accredited law school showing his honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and no degree will be conferred until after one year of residence and study at this school.

Fees and Expenses

The charges for instruction are as follows:

Registration fee to accompany application.....	\$ 2.00
Matriculation fee, payable on first registration.....	10.00
Diploma fee, payable upon graduation.....	10.00

Tuition fee, per annum:	\$200.00
Day School	150.00
Evening School	

An additional tuition fee of \$50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Lombard and Greene Streets, Baltimore, Md.

THE UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
AND
COLLEGE OF PHYSICIANS AND SURGEONS

J. M. H. ROWLAND, *Dean.*

MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
GORDON WILSON, M.D.
HARRY FRIEDENWALD, A.B., M.D.
WILLIAM S. GARDNER, M.D.
STANDISH MCCLEARY, M.D.
JULIUS FRIEDENWALD, A.M., M.D.
J. M. H. ROWLAND, M.D.
ALEXIUS MCGLANNAN, A.M., M.D.
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
WILLIAM H. SCHULTZ, Ph.B., Ph.D.
MAURICE C. PINCOFFS, S.B., M.D.
FRANK W. HACHTEL, M.D.
A. H. RYAN, M.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in America.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837), and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September, 1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the Medical School has control of the clinical facilities of the Mercy Hospital, in which were treated last year more than 30,000 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year about 1,200 cases were treated in the hospital and outdoor clinic.

The hospital now has about 275 beds—for medical, surgical, obstetrical and special cases, and furnishes an excellent supply of clinical material for the third and fourth-year students.

Dispensaries and Laboratories

The dispensaries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work one day of each week in one of these dispensaries; all students in the senior year work one hour each day; 91,000 cases were treated last year which gives an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are the Anatomical, Chemical, Experimental Physiology, Physiological Chemistry, Histology and Embryology, Pathology and Bacteriology, and Clinical Pathology.

Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see Medical School Bulletin.)

Faculty Medal: Hirsh Prize; The Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarship; The Randolph Winslow Scholarship; The University Scholarship; The Frederica Gehrmann Scholarship; The Dr. Leo Karlinsky Scholarship; The Clarence and Geneva Warfield Scholarships; Walter B. Brooks Scholarship; Israel and Cecilia A. Cohen Scholarship.

Requirements for Admission

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the registrar of the University of Maryland. This certificate is obtained on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student's Certificate are:

(a) The completion of a standard four-year high school course or the equivalent, and in addition:

(b) Two years, sixty semester hours of basic college credits, including chemistry, biology, physics and English, and exclusive of Military Drill or Physical Education as outlined in the Pre-Medical Curriculum, or its equivalent, will meet the minimum requirement for admission. Students are strongly recommended, however, to complete the three-year pre-medical curriculum of 98 semester hours before making application for admission.

Women are admitted to the Medical School of this University.

(a) Details of the High School Requirements

For admission to the Pre-Medical Curriculum students,

1. Shall have completed a four-year course of 15 units in a standard accredited high school or other institution of standard secondary school grade; or,

2. Shall have the equivalent as demonstrated by successfully passing entrance examinations in the following subjects:

Credits for admission to the pre-medical course may be granted for the subjects shown in the following list and for any other subject counted by a standard accredited high school as a part of the requirement for its diploma provided that at least eleven units must be offered in Groups I-V:

(b) Schedule of Subjects Required or Accepted for Admission to the Pre-Medical Curriculum

<i>Subjects</i>	<i>Units</i>	<i>Required</i>
GROUP I.—English:		
Literature and composition.....	3-4	3
GROUP II.—Foreign Languages:		
Latin	1-4	*2
Greek	1-3	—
French or German.....	1-4	—
Other foreign languages.....	1-4	—
GROUP III.—Mathematics:		
Elementary Algebra	1	1
Advanced Algebra	½-1	—
Plane Geometry	1	1
Solid Geometry	½	—
Trigonometry	½	—

* Both of the required units of Foreign Languages must be of the same language, but the two units may be presented in any one of the languages specified.

Of the fifteen units of high school work seven units are required, as indicated in the foregoing schedule: the balance may be made up from any of the other subjects in the schedule.

<i>Subjects</i>	<i>Units</i>	<i>Required</i>
GROUP IV.—History:		
Ancient History	½-1	—
Medieval and Modern History	½-1	—
English History	½-1	—
American History	½-1	—
Civil Government	½-1	—
GROUP V.—Science:		
Botany	½-1	—
Zoology	½-1	—

<i>Subjects</i>	<i>Units</i>	<i>Required</i>
GROUP V.—Science (Continued):		
Chemistry	1	—
Physics	1	—
Physiography	½-1	—
Physiology	½-1	—
Astronomy	½	—
Geology	½-1	—
GROUP VI.—Miscellaneous:		
Agriculture	1-2	—
Bookkeeping	½-1	—
Business Law	½	—
Commercial Geography	½-1	—
Domestic Science	1-2	—
Drawing—Freehand and Mechanical.....	½-2	—
Economics and Economy History	½-1	—
Manual Training	1-2	—
Music—Appreciation or Harmony	1-2	—
Stenography	1	—

Expenses

Following are the fees for students in the Medical School:

<i>Matriculation</i>	<i>Resident—Non-Resident</i>	<i>Laboratory</i>	<i>Graduation</i>
\$10.00 (only once)	\$300.00 \$400.00	\$20.00 (yearly)	\$10.00

Estimated living expenses for students in Baltimore:

	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Books	\$ 35	\$ 60	\$ 75
College incidentals	20	20	20
Board, eight months	225	256	320
Room rent	64	80	100
Clothing and laundry	50	80	150
All other expenses	25	50	75
Total.....	\$386	\$546	\$740

SCHOOL OF NURSING

ANNIE CREIGHTON, R. N., *Director and Superintendent of Nurses.*

The University of Maryland School of Nursing was established in the year 1889. Since that time it has been an integral part of the University of Maryland Hospital.

The school is non-sectarian, the only religious services being morning prayers.

The University of Maryland Hospital is a general hospital containing about 285 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing, including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by well-qualified instructors and members of the medical staff of the University.

Programs Offered

The program of study of the School is planned for two groups of students: (a) The three-year group; (b) the five-year group.

Requirements for Admission

In order to become a candidate for admission to the three-year program of the School, application must be made in person or by letter to the superintendent of nurses. An application by letter should be accompanied by a statement from a clergyman, testifying to good moral character, and from a physician certifying to sound health and unimpaired faculties. No person will be considered who is not in a good physical condition, between the ages of 18 and 35. She must also show that she has a high-school education or its equivalent. This is the minimum requirement, for women of superior education and culture are given preference provided they meet the requirements in other particulars.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation is left to the decision of the superintendent of nurses. Misconduct, disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the superintendent of nurses, with the approval of the president of the University.

Students are admitted to this group in February and September.

The requirements for admission to the five-year program of the School of Nursing are the same as for the other colleges and schools. Section I, "Entrance."

Three-Year Program

The three-year program is designed to meet the requirements for the Diploma in Nursing and comprises the work of the Junior, Intermediate and Senior years.

Junior Year

The Junior Year is divided into two periods. The first term is the preparatory period (four months) and the second the junior term. In the preparatory term the student is given practical instruction in:

Junior Year—First Term

1. The making of hospital and surgical supplies. The cost of hospital materials, apparatus and surgical instruments.
2. Household economics and the preparation of foods.
3. The hospital outpatients department and dispensary.

During this term the practical work is done under constant supervision, and teaching is given correlatively in the class room.

Excursions are made to markets, hygienic dairies, linen-rooms, laundry and storeroom.

The maximum number of hours per week in formal instruction divided into lecture and laboratory periods is thirty hours and includes courses in anatomy and physiology, dietetics, materia medica, personal hygiene, bacteriology, drugs and solutions, household economics, short course in ethics and history of nursing.

At the close of the first half of junior year the students are required to pass satisfactorily both the written and oral tests, and failure to do so will be sufficient reason to terminate the course at this point.

Subsequent Course

The course of instruction, in addition to the probationary period, occupies two and three-fourth years, and students are not accepted for a shorter period.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

Throughout the three years, regular courses of instruction and lectures are given by members of the medical and nursing school faculties.

Junior Year—Second Term

During this period the students receive theoretical instruction in massage, general surgery, urinalysis and advanced nursing procedures. Practical instruction is received in the male and female, medical, surgical and children's wards.

Intermediate Year

During this period the theoretical instruction includes pediatrics, infectious diseases, obstetrics, gynecology, diet on disease and orthopedics. The practical work provides experience in the nursing of obstetrical and gynecological patients in the operating rooms and the outpatient department.

Senior Year

During this period the student receives short courses of lectures on subjects of special interest. This includes a consideration of the work of institutions of public and private charities, of settlements, and various branches of professional work in nursing.

Experience is given in executive and administration work to those showing exceptional ability in the senior year. With these students conferences are held on administration and teaching problems.

Hours on Duty

During the probation term the students are on duty not more than six hours daily. During the Junior, Intermediate and Senior years, the students are on eight-hour day duty, with six hours on Sundays and holidays, and ten-hour night duty. The night duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five or six months during the three years.

Sickness

A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

Vacations

Vacations are given between June and September. A period of three weeks is allowed the student at the completion of first and second years.

Expenses

A student receives her board, lodging and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms made in accordance with the hospital regulations. After being accepted as a student nurse she wears the uniform furnished by the hospital. The student is also provided with textbooks and in addition to this is paid five dollars (\$5.00) a month. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

Five-Year Program

In addition to the regular three-year course of training the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or pre-hospital period), consisting of 70 semester hours, are spent in the College of Arts and Sciences of the

University, during which period the student has an introduction to the general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park in order that the student may have her share in the social and cultural activities of college life. The last three years are spent in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, which is also affiliated with the School of Medicine of the University. In the fifth year of the combined program certain elective courses such as Public Health Nursing, Nursing Education, Practical Sociology, and Educational Psychology are arranged.

	Semester	
	I	II
<i>Freshman Year</i>		
English Composition and Rhetoric (Eng. 1).....	3	3
Foreign Language	4-3	4-3
General Chemistry (Chem. 1).....	4	4
Elements of Social Science (Soc. Sci. 1).....	3	3
Elementary Foods (H. E. 1).....	3	3
Physical Education (Phy. Ed. 1).....	1	1
	—	—
	18	18
<i>Sophomore Year</i>		
English Literature or History.....	3	3
Organic and Food Chemistry.....	3	—
Nutrition	—	3
General Economics (Econ. 5).....	3	—
Elements of Psychology (Psych. 1).....	—	3
Gen. Zoology (Zool. 1).....	4	—
Public Speaking (P. S. 1-2).....	1	1
Physical Education (Phys. Ed. 2).....	2	2
Electives	1	5
	—	—
	17	17

Degree and Diploma

The Diploma in Nursing will be awarded to those who have completed satisfactorily the three-years' program.

The degree of Bachelor of Science and the Diploma in Nursing are awarded to the students who complete successfully the prescribed combined academic and nursing program.

Scholarships

One scholarship has been established by the alumnae of the training school. It entitles a nurse to a six-weeks' course at Teachers College, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work.

An alumnae pin is presented by the Woman's Auxiliary Board to the student who, at the completion of three years, shows exceptional executive ability.

A scholarship of the value of \$50.00, known as the Zimmerman Prize, is given in the senior year for practical nursing.

SCHOOL OF PHARMACY

A. G. DU MEZ, *Dean*.

E. F. KELLY, *Advisory Dean*.

EXECUTIVE COMMITTEE

A. G. DU MEZ

E. F. KELLY

H. E. WICH

CHARLES C. PLITT

JOHN C. KRANTZ

J. CARLTON WOLF

B. OLIVE COLE

The School of Pharmacy was organized in 1841, largely at the instance of members of the Faculty of Medicine, and for a time the lectures were delivered at the Medical School. Later it became separated and continued an independent organization, as the Maryland College of Pharmacy, until it finally became part of the University in 1904. With but one short intermission, previous to 1865, it has continuously exercised its functions as a teaching school of pharmacy.

Location

The School of Pharmacy is located at the northeast corner of Lombard and Greene Streets, with the Schools of Medicine, Law and Dentistry.

Policy and Degrees

The chief purpose of this school is to prepare its matriculants for the intelligent practice of dispensing pharmacy, although certain advanced work intended to fit the student for service in the other branches of pharmacy is offered.

Upon completion of the first three years of the course, the diploma of Graduate in Pharmacy (Ph. G.) is awarded, which satisfies the college educational requirements of the various States for registration as a pharmacist.

The degree of Bachelor of Science in Pharmacy (B. S. in Phar.) will be given upon the successful completion of the work prescribed for the entire four years.

Combined Curriculum in Pharmacy and Medicine

A combined curriculum has been arranged with the Medical School of the University of Maryland by which students may obtain the degree of Bachelor of Science in Pharmacy and Doctor of Medicine in seven years. Students who successfully complete the first three years of the course in Pharmacy, an additional four semester hours in Zoology, and show that

they are qualified by character and scholarship to enter the medical profession, are eligible for admission into the Medical School of the University of Maryland, and upon the successful completion of the first two years of the medical course will be awarded the degree of Bachelor of Science in Pharmacy by the School of Pharmacy.

This privilege will be open only to students who maintain a uniformly good scholastic record during the first two years of the course in Pharmacy, and those who wish to avail themselves of it must so advise the School of Pharmacy before entering upon the work of the third year in order that provision may be made for the additional instruction in Zoology.

Recognition

This school holds membership in the American Association of Colleges of Pharmacy. The object of the Association is to promote the interests of pharmaceutical education, and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Association, uniform and higher standards of education have been adopted from time to time, and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

This school is registered in the New York Department of Education and its diploma is recognized in all States.

Requirements for Admission

The applicant must have completed a four-year standard high school course, or its equivalent. A minimum age of seventeen years is demanded except when the candidate is a graduate of an accredited high school or of an institution of equal grade.

Admission to the course in pharmacy is by certificate issued by the Registrar of the University of Maryland, Lombard and Greene Streets, Baltimore, Md. The certificate is issued on the basis of credentials, or by examination, or both.

Applicants whose credentials do not meet the requirements must stand an examination in appropriate subjects to make up the required number of units. The fee for such examination is one dollar per subject; five dollars for the entire number of subjects.

Credit will be given for first-year pharmaceutical subjects to those students coming from schools of pharmacy holding membership in the American Association of Colleges of Pharmacy, provided they present a proper certificate of the satisfactory completion of such subjects and meet the entrance requirements of this school. Credit for general educational subjects will be given to those students presenting evidence of having completed work of equal value.

Requirements for Graduation

1. The candidate must possess a good moral character.
2. He must have completed successfully the work specified in the first three years of the course if a candidate for the Graduate in Pharmacy

(Ph.G.) diploma; or four years if a candidate for the degree of Bachelor of Science in Pharmacy. In either case the last year must be taken in this school.

Matriculation and Registration

The Matriculation Ticket must be procured from the office of the School of Pharmacy, and must be taken out before entering the classes. All students after matriculation are required to register at the Office of the Registrar. The last date of matriculation is October 3rd, 1927.

Expenses

Matriculation	Tuition		Laboratory	Graduation
	Resident	Non-Resident		
\$10.00 (only once)	\$200.00	\$250.00	\$20.00 (yearly)	\$10.00

Tuition for the first semester and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (returned in case of failure) on or before February 4th, 1928.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

SECTION III. DESCRIPTION OF COURSE

The courses of instruction described in this section are offered at College Park. The courses offered in the Baltimore Schools are described in the separate announcements issued by the several schools.

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

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Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduate students by the numbers 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parenthesis after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting and other information required by the student in making out his schedule. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also "Regulation of Studies," Section I.

AGRICULTURAL ECONOMICS

PROFESSOR DEVAULT

A. E. 1 f. *Agricultural Economics* (3)—Three lectures or recitations. Prerequisite, Econ. 5 A s.

A general course in Agricultural Economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements and marketing and co-operation.

A. E. 2 s. *Advertising Agricultural Products* (3) — Three lectures. Methods of giving publicity to agricultural products held for sale, naming the farm, advertising mediums; trade marks and slogans, roadside markets, demand vs. competition, legal aspects of advertising, advertising costs and advertising campaigns.

A. E. 8 s. *Food Products Inspection* (1).

This course, arranged by the Department of Agricultural Economics in co-operation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in shipping point inspection of fruits and vegetables. As a part of the work it is planned to give each student an opportunity to participate in the actual inspection of car-lots of fruits and vegetables in Washington, D. C. Students are not guaranteed employment, but when there is need for the appointment of additional inspectors, such students as have made satisfactory ratings will be given preference.

For Advanced Undergraduates and Graduates

A. E. 101 s. *Transportation of Farm Products* (3)—Three lectures or recitations.

A study of the development of transportation in the United States, the different agencies for transporting farm products, with special attention to such problems as tariffs, rate structure and the development of fast freight lines, refrigerator service, etc. (DeVault.)

A. E. 102 s. *Marketing of Farm Products* (3)—Three lectures or recitations. Prerequisite, Econ. 5 A s.

A complete analysis of the present system of transporting, storing and distributing farm products and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. *Co-operation in Agriculture* (3)—Three lectures or recitations. Prerequisite, Econ. 5 A s.

Historical and comparative development of farmers' co-operative organizations; reasons for failure and essentials to success; present tendencies. (DeVault.)

A. E. 105 y. *Seminar* (1-3).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 106 y. *Research Problems* (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of reports on progress of work, methods of approach, etc. (DeVault.)

For Graduates

A. E. 201 y. *Special Problems in Agricultural Economics* (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer, such as: land problems, agricultural finance, farm wealth, agricultural prices, transportation, and special problems in marketing and co-operation. (Staff.)

A. E. 202 y. *Research and Thesis* (8)—Students will be assigned research work in Agricultural Economics under the supervision of the instructor. The work will consist of original investigation in problems of Agricultural Economics, and the results will be presented in the form of a thesis. (De Vault.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER; MR. DAY.

For Advanced Undergraduates and Graduates

AG. ED. 100 s. *Survey of Teaching Methods for Agricultural Students* (3)—Two lectures and one laboratory period. Open to juniors and seniors; required of juniors in Agricultural Education. Prerequisite, Ed. 101. Cannot be counted toward major for advanced degree in Agricultural Education.

The nature of educational objectives, the class period, steps of the lesson plan, observation and critiques, type lessons, lesson planning, class management. (Day.)

AG. ED. 101 y. *Teaching Secondary Vocational Agriculture* (8) — Three lectures and one laboratory period the first semester. One seminar period and practicum work to be arranged the second semester. Practicum work may be arranged during the first semester. Prerequisites, Ag. Ed. 100; A. H. 1, 2; Dairy 1; Poultry 1; Soils 1; Agronomy 1, 2; Hort. 1, 11; F. Mech. 101, 104; A. E. 1; F. M. 2. Cannot be counted toward major for advanced degree in Agricultural Education.

Types of schools and classes; administrative programs; qualifications of teachers; day class instruction — objectives, selection of projects, project instruction, selection of content for group instruction, methods of class period; evening class instruction; part-time class instruction; equipment and other administrative problems; unit courses; student projects; investigations; reports. (Cotterman.)

AG. ED. 102 s. *Rural Life and Education* (3)—Three lectures a week.

Ancient and foreign rural communities; evolution of American rural communities; rural social institutions; social and cultural measurements, standards of living; the analysis of rural communities; community and educational programs; problems in leadership, investigations; reports. This course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people. (Cotterman.)

AG. ED. 103 s. *Objectives and Methods in Extension Education* (3)—Three lectures a week.

Given under the supervision of the Extension Service and designed to equip young men to enter the broad field of extension work. Methods of assembling and disseminating the agricultural information available for the practical farmer; administration, organization, supervision and practical details connected with the work of a successful county agent, club work and extension specialist. Student will be required to gain experience under the guidance of men experienced in the respective

fields. Traveling expenses for this course will be adjusted according to circumstances, the ability of the man and the service rendered. (Cotterman and Extension Specialists.)

AG. ED. 104 f. *Teaching Farm Shop in Secondary Schools* (1)—One lecture a week.

Objectives in the teaching of farm shop; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of instruction; special projects. (Carpenter.)

AG. ED. 105 f. *School and Rural Community Surveys* (2-3)—Credits determined by amount and character of work done. Two lectures.

The function of survey; typical surveys, their purposes and findings; types of surveys; sources of information; preparation of schedules; collection, tabulation and interpretation of data. (Cotterman.) Not given in 1927-1928.

For Graduates

AG. ED. 201 S. *Special Problems in the Teaching of Vocational Agriculture* (3)—Summer Session only. Prerequisite, Ag. Ed. 101.

Analysis of the work of the supervisor; supervisory programs; policies; problems; contemporary developments; principles of supervision; investigations; reports. (Cotterman.)

AG. ED. 202 S. *Supervision of Vocational Agriculture* (3)—Summer sessions only. Prerequisite, Ag. Ed. 101.

Analysis of the work of the supervisor; supervisory programs; policies; problems; contemporary developments; principles of supervision; investigations; reports. (Cotterman.)

AG. ED. 204 s. *Seminar in Agricultural Education* (3). Problems in the administration and organization of Agricultural Education—prevocational, secondary, collegiate and extension; individual problems and papers; current literature. (Cotterman.)

ED. 202 f. *College Teaching* (3).

ED. 205 s. *Problems in Higher Education* (3).

(See History and Principles of Education.)

AGRONOMY

PROFESSOR METZGER; ASSOCIATE PROFESSOR KEMP;

ASSISTANT PROFESSOR EPPLEY

AGRON. 1 f. *Field Crop Production* (3)—Two lectures and one laboratory period.

History, distribution, adaptation, culture, improvement and uses of cereal, forage, pasture, cover and green manure crops.

AGRON. 2 s. *Field Crop Production* (3)—Two lectures and one laboratory period.

Continuation of Agron. 1 f.

AGRON 3 s. *Grading Farm Crops* (2)—One lecture and one laboratory period. Prerequisite, Agron. 1 and 2. Not offered 1927-1928.

Market classifications and grades as recommended by the United States bureau of Markets and practice in determining the grades.

AGRON. 4 f. *Grain and Hay Judging, Identification and Judging of Farm Crops* (1)—One laboratory period. Prerequisite, Agron. 1 and 2.

A study of the classification of farm crops; and practice in judging the cereals for milling, seeding and feeding purposes and practice in judging hay.

AGRON. 5 s. *Tobacco Production* (2)—One lecture and one laboratory period. Offered only in even years, 1924, 1926, etc.

This course takes up in detail the handling of the crop from preparation of the plant bed through marketing, giving special attention to Maryland types of tobacco.

AGRON. 9 y. *Research and Thesis* (4).

Students are given a chance to do investigation work either in collecting information or in solving some problem in the laboratory, field or greenhouse.

For Advanced Undergraduates and Graduates

AGRON. 101 f. *Genetics* (3)—Two lectures and one laboratory period. General course in genetics designed to prepare students for later courses in the breeding of animals or crops in which they are specializing. (Kemp.)

AGRON. 102 f. *Advanced Genetics* (3)—Two lectures and one laboratory period. Prerequisite, Agron. 101. Not offered 1927-1928.

This course takes up further details of mutants and chromosome irregularities, interference and coincidence, interspecies crosses and the results of physical attempts to modify germplasm. (Kemp.)

AGRON. 103 f. *Crop Breeding* (2)—One lecture and one laboratory period. Prerequisite, Agron. 101.

The principles of breeding as applied to field crops and methods used in crop improvement. (Kemp.)

AGRON. 120 s. *Cropping Systems and Methods* (2) — Two lectures. Prerequisites, Agron. 1 and Soils 1.

Principles and factors influencing cropping systems in the United States; study of rotation experiments; theories of cropping methods; and practice in arranging type farming systems. (Metzger.)

AGRON. 121 s. *Methods of Crop Investigations* (2)—One lecture and one laboratory period.

A consideration of crop investigation methods at the various experiment stations and the standardization of such methods. (Kemp.)

AGRON. 122 f. *Agricultural Statistics* (2)—Two lectures.

A study of the collection, analysis, interpretation and presentation of agricultural statistics. The course will include the making of maps, diagrams, charts and graphs, together with a study of expressions of type variability and correlation.

AGRON. 123 s. *Advanced Agricultural Statistics* (2) — Two lectures. Prerequisite, Agron 101 or 122.

A study of the theory of error, measures of relationship, multiple correlation and regression, curve fitting.

AGRON. 129 y. *Seminar* (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in agronomy.

For Graduates

AGRON. 201 y. *Crop Breeding*—Credits determined by work accomplished.

The content of this course is similar to the undergraduate course in crop breeding, but will be adapted more to graduate students and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

AGRON. 209 y. *Research*—Credits determined by work accomplished.

With the approval of the head of the department the student will be allowed to work on any problem in agronomy or he will be given a list of suggested problems from which he may make a selection. (Staff.)

ANIMAL HUSBANDRY

PROFESSORS MEADE; CARMICHAEL; ASSISTANT PROFESSOR HUNT.

A. H. 1 f. *General Animal Husbandry* (3)—Two lectures and one laboratory period.

Place of livestock in the farm organization. General principles underlying efficient livestock management. Brief survey of breeds, types and market classes of livestock together with an insight into our meat supply.

A. H. 2 f. *Feeds and Feeding* (3)—Two lectures and one laboratory period.

Elements of nutrition, source, characteristics and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations.

A. H. 3 s. *Principles of Breeding* (3)—Two lectures and one laboratory period. Junior year.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding and pedigree work.

A. H. 4 s. *Swine Production* (3)—Two lectures and one laboratory period. Not given 1927-1928.

The care, feeding, breeding, management and judging of swine and the economics of the swine industry.

A. H. 5 f. *Beef Production* (2)—Two lectures and one laboratory period. Not given 1927-1928.

The care, feeding, breeding, management of beef herds, fattening and the economics of the beef industry.

A. H. 6 s. *Horse and Mule Production* (2)—One lecture and one laboratory period. Not given 1927-1928.

The care, feeding, breeding and management of horses. Market classes and grades and judging.

A. H. 7 s. *Sheep Production* (3)—Two lectures and one laboratory period.

Care, feeding, breeding and management of the farm flock. Judging of sheep and the grading of wool.

A. H. 8 f. *Meat and Meat Products* (2)—Two laboratory periods. The slaughtering of meat animals and the production, preparation and curing of meat and meat products.

A. H. 9-10 y. *Advanced Judging* (2)—One laboratory period. First Semester—The comparative and competitive judging of sheep and swine.

Second Semester—The comparative and competitive judging of horses and beef cattle. Trips to various stock farms throughout the state will be made. Such judging teams as may be chosen to represent the university will be selected from among those taking this course.

A. H. 11 s. *Markets and Marketing* (3)—Two lectures and one laboratory period.

History and development, organization and status of the meat, wool and horse industries. Market classes and grades of livestock. American livestock markets and how they function. Not given 1927-1928.

A. H. 12 y. *Research and Thesis* (4-6).

Work to be done by assignment and under supervision. Original investigation in problems in animal husbandry, the results of which research are to be presented in the form of a thesis, a copy of which must be filed in the department library.

For Advanced Undergraduates and Graduates

A. H. 101 s. *Nutrition* (3)—Two lectures and one laboratory period. Senior year.

A study of digestion, assimilation, metabolism and protein and energy requirements. Methods of investigation and studies in the utilization of feed and nutrients. (Meade.)

A. H. 102 y. *Seminar* (2)—One lecture period. Senior and graduate students only. Students are required to prepare papers based upon current scientific publications relating to animal husbandry or upon their research work for presentation before and discussion by the class.

For Graduates

A. H. 201 y. *Research*—Credit to be determined by the amount and character of work done. With the approval of the head of the department, students will be required to pursue original research in some phase of animal husbandry, carry the same to completion and report the results in the form of a thesis. (Staff.)

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

ASTR. 1 f. or s. *Astronomy* (3)—Three lectures. Elective. An elementary course in descriptive astronomy. Open to juniors and seniors.

BACTERIOLOGY

PROFESSORS PICKENS, REED; ASSISTANT PROFESSORS WELSH, POELMA;

MR. STRAKA, MR. MELROY, MR. WHEATON, MR. STUART, MR. FABER.

BACT. 1 f. *General Bacteriology* (3)—Repeated second semester. One lecture and two laboratory periods. Sophomores.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology, classification; preparation of cultural media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; classification, composition and uses of stains; isolation, cultivation and identification of aerobic and anaerobic bacteria; vital activities of bacteria.

BACT. 2 s. *General Bacteriology* (3)—One lecture and two laboratory periods.

Continuation of Bact. 1. Application of Bacteriology to water, milk, foods, soil and air; Pathogens and Immunity.

BACT. 3 s. *Household Bacteriology* (3)—One lecture and two laboratory periods. Junior year.

A brief history of bacteriology, laboratory technique; care, preservation and contamination of foods: Personal, home and community hygiene.

BACT. 4 s. *Sanitary Bacteriology* (1) — One lecture period. Senior year, for engineering students.

Application to water purification and sewage disposal.

For Advanced Undergraduates and Graduates

BACT. 101 y. *Dairy Bacteriology* (6)—One lecture and two laboratory periods. Juniors. Prerequisite, Bact. 1.

Historical sketch; relation of bacteria to dairy products; preparation of media; plating by dilution method; direct microscopic examination; kinds of bacteria in milk, and their development; pasteurization, by flash and hold methods; sources of contamination of milk; care of milk; abnormal milks; tests and their relation to bacterial counts; fermented milks; bacteriological analysis of standard grades of milk and milk products; preparation of starters; requirements and standards for various grades of milk; public health requirements. (Poelma.)

BACT. 102 y. *Advanced Bacteriology* (3-10)—Junior and seniors. Prerequisite, Bact. 1.

This course is intended primarily to give the student a chance to develop his own initiative. He will be allowed to decide upon his project and work it out as much as possible in his own way under proper supervision. In this manner he will be able to apply his knowledge of bacteriology to a given problem in that particular field in which he is interested. He will get to know something of the methods of research. Familiarity with library practices and current literature will be included. (Pickens.)

BACT. 103 s. *Hematology* (2)—Senior year. Prerequisite, Bact. 1.

Procuring blood; estimating the amount of hemoglobin; color index; examination of red cells and leucocytes in fresh and stained preparations; numerical count of erythrocytes and leucocytes; differential count of leucocytes; sources and development of the formed elements of blood; pathological forms and counts. (Poelma.)

BACT. 104 f. *Serology* (2-3)—Junior or Senior year. Prerequisite, Bact. 2.

The theory and application of several serological tests, including the Complement Fixation Reaction. (Welsh.)

BACT. 105 f. *Pathological Technique* (3)—Junior or senior year. Prerequisite, Bact. 1.

Examination of fresh material; free hand sections; fixation; frozen sections; decalcification; celloidin and paraffin imbedding processes; sectioning; general and special staining processes. (Pickens.)

BACT. 106. *Comparative Anatomy and Physiology* (3)—Three lectures. Junior year.

Structure of the animal body; abnormal as contrasted with normal. The interrelationship between the various organs and parts as to structure and function. (Reed.)

BACT. 107 s. *Urinalysis* (2)—Junior or senior year. Prerequisite, Bact. 1. (Melroy.)

BACT. 108. *Animal Hygiene* (3)—Three lectures or demonstrations. Senior year.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease. Prevention and early recognition of disease; general hygiene; sanitation; first aid. (Reed.)

BACT. 109 y. *Thesis* (4)—Senior year. Prerequisites, Bact. 1 and at least one of the advanced courses.

Investigation of given project, results of which are to be presented in the form of a thesis and submitted for credit toward graduation. (Pickens.)

BACT. 110 y. *Seminar* (2)—Senior year.

The work will consist of making reports on individual projects and on recent scientific literature. (Pickens and Staff.)

For Graduates

BACT. 201 y. *Research Bacteriology* (4-12)—Prerequisites, Bact. 1 and in certain cases, Bact. 103, depending upon the project. (Pickens.)

BACT. 202 y. *Research in Genital Diseases of Farm Animals*. Prerequisite, Degree in Veterinary Medicine, from an approved Veterinary College. Laboratory and field work by assignment. (Reed.)

BOTANY

PROFESSORS ZIMMERMAN, NORTON, TEMPLE; MR. MOOK, MR. SPIEGELBERG.

(For other Botanical Courses see Plant Physiology and Plant Pathology.)

BOT. 1 f or s. *General Botany* (4)—Two lectures and two laboratory periods.

General introduction to botany, touching briefly on all phases of the subject and planned to give the fundamental prerequisites for study in the special departments.

BOT. 2 s. *General Botany* (8) — Two lectures and two laboratory periods. Prerequisite, Bot. 1.

A study of algae, bacteria, fungi, liverworts, mosses, ferns, and seed plants. The development of reproduction from the simplest form to the most complex; adjustment of plants to the land habit of growth; field trips to study the local vegetation; trips to the botanical gardens, parks and greenhouses in Washington to study other plants of special interest. A cultural course intended also as foundational to a career in the plant sciences. (Temple.)

BOT. 3 s. *Systematic Botany* (2)—One lecture and one laboratory period. Prerequisite, Bot. 1.

A study of the local flora. A study is made of floral parts and the essential relations between the groups of flowering plants. Students become familiar with the systematic key used to identify plants. Not given 1927-1928.

BOT. 4 s. *General Mycology* (2)—One lecture and one laboratory period.

Introductory comparative study of the morphology, life history and classification of economic fungi.

For Advanced Undergraduates and Graduates

BOT. 101 f. *Plant Anatomy* (3) — One lecture and two laboratory periods.

A study of the structures of roots, stems, leaves, flowers, and fruits; the origin and development of organs and tissue systems in vascular plants. (Zimmerman.)

BOT. 102 f. *Methods in Plant Histology* (3)—One lecture and two laboratory periods. Prerequisite, Bot. 101. Not given 1927-1928.

Primarily a study in technique. It includes methods of killing, fixing, imbedding, sectioning, staining and mounting of plant materials. (Zimmerman.)

BOT. 103 f or s. *Advanced Taxonomy* (3)—One lecture and two laboratory periods. Prerequisite, Bot. 101.

The course is offered for students who want more proficiency in systematic botany than the elementary course affords. A student who completes the course should be able to classify the grasses and other common plants of the state. (Norton.)

BOT. 105 s. *Economic Botany* (3) — One lecture and two laboratory periods. Not given 1927-1928.

The names, taxonomic position, native and commercial geographic distribution and use, of the leading economic plants of the world are studied. By examination of plant products in markets, stores, factories and gardens, students become familiar with the useful plants both in the natural form and as used by man. (Norton.)

For Graduates

BOT. 202. *Special Studies of Fungi*—Credit hours according to work done. Prerequisite, Bot. 103 or 106.

Special problems in the structure or life history of fungi or the monographic study of some group of fungi.

BOT. 203. *Special Plant Taxonomy*—Credit hours according to work done. Prerequisite, Bot. 103.

Original studies in the taxonomy of some group of plants.

CHEMISTRY

PROFESSORS GORDON, BROUGHTON, KHARASCH AND DRAKE; ASSOCIATE PROFESSORS HARING, WILEY; ASSISTANT PROFESSORS LICHTENWALNER, WHITE; MISS GRAFLIN, MR. REINMUTH, DR. ISBELL.

A. General Chemistry

CHEM. 1 A y. *General Chemistry and Qualitative Analysis* (8)—Two lectures and two laboratory periods each semester.

A study of the non-metals and metals, the later being studied from a qualitative standpoint. One of the main purposes of the course is to develop original work, clear thinking and keen observation. This is accomplished by the unit-study method of teaching.

Course A is intended for students who have never studied chemistry, or have passed their high school chemistry with a grade of less than B.

CHEM. 1 B y. *General Chemistry and Qualitative Analysis* (8)—Two lectures and two laboratory periods each semester.

This course covers much the same ground as Chemistry 1 A y, except that the subject matter is taken up in more detail with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high school chemistry course, with a grade of not less than B.

For Advanced Undergraduates and Graduates

CHEM. 100 y. *Advanced Inorganic Chemistry* (6)—Two lectures and one laboratory period each semester. Prerequisite, 6 y.

A study of the rarer elements is made by comparing their properties with those of the more common elements. The course is based upon the periodic system, the electromotive series and the electronic structure of matter. The laboratory is devoted to the preparation of pure, inorganic substances. (C. E. White.)

For Graduates

CHEM. 201 y. *Research in Inorganic Chemistry* (12)—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in Chemistry or its equivalent. (White.)

B. Analytical Chemistry

CHEM. 2 y. *Qualitative Analysis* (8)—Two lectures and two laboratory periods. Prerequisites, Chem. 1 A or 1 B. A study of the reactions of the common metals and acid radicals, their separation and identification and the general underlying principles. During the second semester, the nature, preparation and behavior of colloidal substances are taken up.

CHEM. 3 y. *Chemical Calculations* (2)—One credit each semester. Prerequisite, Chem. 1.

Chemical problems relating to analytical chemistry.

CHEM. 4 s. *Quantitative Analysis* (3) — Three laboratory periods. Prerequisite, Chem. 1.

Quantitative analysis for premedical students with special reference to volumetric methods.

CHEM. 5 y. *Determinative Mineralogy and Assaying* (4)—One lecture and one laboratory period. Prerequisite, Chem. 1.

The more important minerals are identified by their characteristic physical and chemical properties. Assays of gold, silver, copper and lead are made.

CHEM. 6 y. *Quantitative Analysis* (8)—One lecture and three laboratory periods. Prerequisite, Chem. 1.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis. Study of indicators, typical volumetric and colorimetric methods. Required of all students majoring in chemistry.

CHEM. 7 y. *Analytical Chemistry* (10)—Two lectures and three laboratory periods. Prerequisite, Chem. 1.

This course includes the principal theories and operations of both qualitative and quantitative analysis. It is especially designed for industrial chemistry students.

CHEM. 9 y. *Electro-Chemical Analysis* (2)—One lecture and one laboratory period. Prerequisite, Chem. 10.

For Advanced Undergraduates and Graduates

CHEM. 101 y. *Advanced Quantitative Analysis* (10)—Two lectures. Three laboratories each semester.

A broad survey of the field of inorganic quantitative analysis. In the first semester mineral analysis will be given. Included in this will be analysis of silicates, carbonates, etc. In the second semester the analysis of steel and iron will be taken up. However, the student will be given wide latitude as to the type of quantitative analysis he wishes to pursue during the second semester. Prerequisite Chem. 1., Chem. 6 or their equivalent. (Wiley.)

C. Organic Chemistry

CHEM. 8 y. *Elementary Organic Chemistry* (8)—Two lectures and two laboratory periods each semester. Prerequisite, Chem. 1.

The course is devoted to a study of the behavior of fundamental types of organic compounds from the standpoint of the electronic conception of valence.

The course is so balanced as to meet the needs of students specializing in chemistry and also premedical students.

For Graduates

Organic Chemistry 8 y. is required of all students taking graduate work in Organic Chemistry.

CHEM. 202 y. *Advanced Organic Chemistry* (8)—Two lectures and assigned laboratory work each semester. Prerequisite, Chem. 8. Not given 1927-1928.

A more advanced treatment of the aliphatic and aromatic compounds, with special emphasis on the most recent theories of structure of organic compound in the light of our modern conception of matter. (Kharasch.)

CHEM. 203 s. *Identification of Organic Compounds* (5)—Prerequisite, Chem. 202.

A systematic study of methods of identifying organic compounds. A thorough review of the most important chemical and physical properties of the fundamental types of organic compounds; methods of separating organic mixtures, etc. Consent of Instructor. (Kharasch.)

CHEM. 204 f or s. *Elementary Organic Analysis. (Cumbustions)* (3)—One lecture and two laboratory periods. (Kharasch.)

CHEM. 205 y. *Organic Preparations* (4)—One lecture and three laboratory periods. Eight hours of organic preparations are essential before a student is eligible for research. The laboratory work consists in preparing compounds described in the literature. No textbook. (Kharasch.)

CHEM. 206 s. *Color in Relation to Chemical Constitution* (1)—Prerequisites, Chem. 201. Not given 1927-1928.

A discussion of the theory of quinoidation, colors in dyestuffs, colors of second order, etc. (Kharasch.)

CHEM. 207 s. *Carbohydrates* (1)—Prerequisite, Chem. 8. (Kharasch.) Not given 1927-1928.

CHEM. 208. *Synthetic Drugs* (3)—One lecture and two laboratory periods. Prerequisite, Chem. 202. (Kharasch.)

CHEM. 209 s. *Selected Topics in Organic Chemistry* (2)—Two lectures.

Discussion of the theories of tautomerism, electromerism, molecular rearrangements, etc. Consent of Instructor. (Kharasch.)

CHEM. 210. *Research in Organic Chemistry.* (Kharasch.)

D. Physical Chemistry

CHEM. 10 y. *Elementary Physical Chemistry* (6)—Two lectures and one laboratory period each semester. Prerequisites, Chem. 1; Physics 24 y; Math. 3 y.

The course is intended to review the more theoretical points of inorganic chemistry from an advanced standpoint, to prepare the way for

an extensive treatment of physical chemistry, and to furnish an elementary course in the subject for those who cannot pursue it farther.

For Advanced Undergraduates and Graduates

CHEM. 102 f. *Physical Chemistry* (4)—Two lectures and two laboratory periods. Prerequisites, Chem. 6 y; Physics 2 y; Math. 5 s.

The gas laws (kinetic theory, liquids, solutions, elementary thermodynamics and thermo-chemistry, colloids, etc. (Haring.)

CHEM. 103 s. *Physical Chemistry* (4)—Two lectures and two laboratory periods. Prerequisite, Chem. 102 f.

A continuation of Chem. 102. Equilibrium, chemical kinetics, electrolytic conductivity, electromotive chemistry, structure of matter, etc. (Haring.)

For Graduates

CHEM. 102, 103 or its equivalent is prerequisite for all the following courses.

CHEM. 212 y. *Colloid Chemistry* (6)—Two lectures and one laboratory period each semester.

Special topics will be taken up with emphasis on the most recent theories and research going on in colloid chemistry at the present time. (Gordon.)

CHEM. 213 f. *The Phase Rule* (2) — Two lectures. Not given in 1927-1928.

A systematic study of heterogeneous equilibria. One, two or three component systems will be considered with practical applications of each. (Haring.)

CHEM. 214 s. *Structure of Matter* (2)—Two lectures.

Subjects considered will be radioactivity, isotopes, the Bohr and Lewis-Langmuir theories of atomic structure and allied topics. (Haring.) Not given 1927-1928.

CHEM. 215 f. *Catalysis* (2)—Two lectures.

This course will consist of lectures on the theory and use of catalysis in various reactions. (Haring.)

CHEM. 216 s. *Theory of Solutions* (2)—Two lectures. A detailed study will be made of the modern theory of ideal solutions, the theory of electrolytic dissociation, anomaly of strong electrolytes, etc. (Haring.)

CHEM. 217 f. *Electrochemistry* (2 or 4)—Two lectures, or two lectures and two laboratory periods.

The principles of electrochemistry. Subjects considered will be the theory of ionization, migration of ions, electromotive force, cells of various types, polarization, ionic equilibria both homogeneous and heterogeneous, theory of indicators, etc. (Haring.)

CHEM. 218 s. *Electrochemistry* (2)—Two lectures.

The practical applications of electrochemistry. Batteries both primary and secondary, electrodeposition and electrothermics will be discussed. (Haring.)

CHEM. 219 y. *Research in Physical Chemistry* (12)—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Haring and Gordon.)

E. Agricultural and Food Chemistry

CHEM. 12 f. *Elements of Organic Chemistry* (4)—Three lectures and one laboratory period. Prerequisite, Chem. 1. The chemistry of carbon and its compounds. This course is particularly designed for students in Agriculture and Home Economics.

CHEM. 13 s. *Agricultural Chemical Analysis* (3)—One lecture and two laboratory periods the second semester. Prerequisite, Chem. 1. An introductory course in the analysis of agricultural products with special reference to the analysis of feeding stuffs, soils, fertilizers and insecticides.

CHEM. 14 s. *Chemistry of Foods* (4)—Two lectures and two laboratory periods. Prerequisite, Chem. 13.

The purpose of this course is to present the principles of chemistry as applied to foods and nutrition with special reference to the fats, carbohydrates, proteins, enzymes, etc.

CHEM. 15 s. *Chemistry of Textiles* (4)—Two lectures and two laboratory periods. Prerequisite, Chem. 13.

A study of the principal textile fibres, their chemical and mechanical structure; chemical methods are given for identifying the various fibres and a study of dyes and mordants.

For Advanced Undergraduates and Graduates

CHEM. 104 f. *General Physiological Chemistry* (4 or 6)—Two lectures and two laboratory periods. Prerequisite, Chem. 12 or its equivalent.

A study of the chemistry of the fats, carbohydrates, proteins and other compounds of biological importance, and the general chemistry of the metabolism of animals. This course is intended for students majoring in biological subjects, and as a prerequisite to certain advanced courses in this department. (Broughton.)

CHEM. 105 y. *Food Inspection and Analysis* (8)—Lectures and laboratory to be assigned. Prerequisite, Chem. 12, or acceptable courses in organic chemistry and quantitative analysis.

Lectures on the composition of foods, methods of analysis and the detection of adulteration in foods. Laboratory work includes the analysis of cereal-foods, the use of the microscope in the detection of adulterants in spices, the identification of added colors, the detection and determination of chemical food preservatives. Analysis of edible fats and oils, sugars and syrups, vinegars, flavoring extracts and beverages.

This course is designed to give preparation for the analytical work connected with the state control of the sale of foods. (Broughton.)

CHEM. 106 f. or s. *Dairy Chemistry* (4)—One lecture and three laboratory periods. Prerequisite, Chem. 12 f.

Lectures and assigned reading on the constituents of dairy products.

This course is designed to give the student a working knowledge and laboratory practice in dairy chemistry and analysis. Practice is given in examining dairy products for confirmation under the food laws, detection of watering, detection of preservatives and added colors, and the detection of adulterants. Students showing sufficient progress may take the second semester's work, and elect to isolate and make complete analysis of the fat or protein of milk. (Broughton.)

CHEM. 107 f or s. *Tissue Analysis* (3) — Three laboratory periods. Prerequisite, Chem. 12 or its equivalent.

A discussion and the application of the analytical methods used in determining the inorganic and organic constituents of live tissue. (Broughton.)

CHEM. 108 s. *Soils and Fertilizer Analysis* (3)—Three laboratory hours. Prerequisite, Chem. 12. (Broughton.)

A complete analysis of soils and fertilizers with training in the more refined analytical procedures as applied.

CHEM. 109 s. *Chemistry of Nutrition* (4) — Two lectures and two laboratory periods. Prerequisites, Agricultural Chemistry 104, or its equivalent. (Broughton.)

Lectures on the chemistry of nutrition, laboratory, determination of fuel value of food and the heat production of man under various conditions, metabolism, the effects on small animals of diets consisting of purified food constituents, and the effects of selected diets on the formation of waste products in the body.

For Graduates

CHEM. 220 f or s. *Special Problems* (4 to 8)—A total of eight credit hours may be obtained in this course by continuing the course for two semesters. Laboratory, library and conference work amounting to ten hours each week. Prerequisite, Chem. 104 and the consent of the instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of certain carbohydrates or amino acids, the determination of the distribution of nitrogen in a protein. The students will choose, with the advice of the instructor, the particular problem to be studied. (Broughton.)

CHEM. 221 f. or s. *Research* (5 to 10)—Agricultural chemical problems will be assigned to graduate students who wish to gain an advanced degree. (Broughton.)

CHEM. 226 y. *Agricultural Chemical Seminar* (2).

During these periods there is a discussion of the latest bulletins and scientific papers on all phases of agricultural chemistry by the graduate students and chemistry staff. Required of seniors and graduates.

F. Industrial Chemistry

For Advanced Undergraduates and Graduates

CHEM. 110. *Industrial Chemistry* (6)—Three lectures. A study of the principal chemical industries; factory inspection trips and reports;

the preparation of a thesis on some subject of importance in the chemical industries.

Prerequisites, Chem. 6 y and 8 y.

CHEM. 111 y. *Engineering Chemistry* (2)—A course for engineering students. A study of water, fuels and combustion, the chemistry of engineering materials, etc. Problems typical of engineering work.

CHEM. 112 f. *Gas Analysis* (4); *Lectures and Laboratory Work* (4)—An experimental study of the methods of determining quantitatively the common gases. Flue gas analysis and its significance. Prerequisite, Chem. 6 y.

CHEM. 113 (Summer). *Unit Processes of Chemical Engineering* (3)—A theoretical discussion of evaporation, distillation, filtration, etc. Problems. Prerequisite, consent of instructor.

CHEM. 114 f. *Thermodynamics* (3)—Lectures, reading and problems. A mathematical treatment of chemical phenomena. Prerequisite, consent of instructor.

For Graduates

CHEM. 222 s. *Typical Methods of Dye Synthesis* (5)—Prerequisite, consent of instructor. Lectures and laboratory work. A study of typical methods of preparation of different types of dyes.

CHEM. 223 f or s. *Thermodynamics* (3). A continuation of course 114 f for graduate students who desire a more extended treatment of thermodynamics than is offered in course 114 f.

CHEM. 224 y. *Research in Industrial Chemistry*. The investigation of special problems and the preparation of a thesis toward an advanced degree.

DAIRY HUSBANDRY

PROFESSOR MEADE; ASSISTANT PROFESSORS HARVEY, INGHAM, MUNKWITZ; MR. BIERMAN, MR. WILES.

D. H. 1 s. *Farm Dairying* (3) — Two lectures and one laboratory period.

Types and breeds of dairy cattle, the production and handling of milk on the farm, use of the Babcock test, starters, cottage cheese and farm buttermaking.

D. H. 2 f. *Dairy Production* (3)—Two lectures and one laboratory period.

Breeds of dairy cattle, their characteristics and adaptability. Methods of herd management, feeding and breeding operations, dairy herd improvement, and other factors concerned in the efficient and economical production of milk. Advanced registry requirements and dairy cattle judging.

D. H. 3 s. *Advanced Dairy Cattle Judging* (1) — One laboratory period.

Comparative judging of dairy cattle. Trips to various leading dairy farms will be made. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course.

D. H. 4 y. *Dairy Products Manufacturing* (3)—One lecture and two laboratory periods.

Manufacture of butter, cheese, ice cream, and the preparation of culture buttermilk. Study of cream separation, pasteurization and processing of milk and cream. Refrigeration. The second semester work will be devoted largely to the study of ice cream and must be preceded by the work of the first semester.

D. H. 5 f. *Market Milk* (4)—Three lectures and one laboratory period.

The course is so planned as to cover the commercial and economic phases of market milk, relating more particularly to cost of production and distribution, processing, milk plant construction and operation, sanitation, and merchandizing. Dairy farms and commercial dairy plants will be visited and their plans of construction, arrangement of equipment and method of operation carefully studied.

D. H. 6 s. *Marketing and Grading of Dairy Products* (2)—One lecture and one laboratory period.

Dairy marketing from the standpoint of producer, dealer and consumer, market grades and the judging of dairy products.

D. H. 7 s. *Dairy Plant Technique* (2)—One lecture and one laboratory period. Prerequisites, D. H. 2; Bact. 103; Chem. 121.

This course is designed to give students practice in the application of dairy technology. Commercial dairy laboratory tests will be made and their economic value as relates to the dairy industry studied.

D. H. 8 y. *Research and Thesis* (4-6)—This work to be done by assignment and under supervision. Opportunity will be given to study and summarize the data on some special problem or to carry on original investigations in problems in Dairy Husbandry. The results of such study or problems must be presented in the form of a thesis, a copy of which shall be filed in the department library.

For Advanced Undergraduates and Graduates

D. H. 101 s. *Advanced Breed Study* (2)—One lecture and one laboratory period. Breed Association rules and regulations, important families, and individuals, pedigree studies. Work largely by assignment. (Ingham.)

D. H. 102 s. *Advanced Dairy Manufacturing* (3) — Hours to be arranged as to lecture and laboratory. Prerequisite, D. H. 4.

Plant and laboratory management, storage problems. Study of costs of production, accounting systems, purchase of equipment and supplies, market conditions, relation of the manufacturer to the shipper and dealer.

In this course the student will be required to act as helper and foreman and will be given an opportunity to participate in the general management of the dairy plant. Visits will be made to nearby dairies and ice-cream establishments. (Harvey.)

D. H. 103 y. *Seminar* (2)—Students are required to prepare papers based upon current scientific publications relating to dairying or upon their research work for presentation before and discussion by the class. (Staff.)

For Graduates

D. H. 201 y. *Research*. Credit to be determined by the amount and quality of work done. Students will be required to pursue, with the approval of the head of the department, an original investigation in some phase of dairy husbandry, carry the same to completion, and report the results in the form of a thesis. (Staff.)

ECONOMICS AND SOCIOLOGY

PROFESSORS LEE, CARPENTER; ASSOCIATE PROFESSORS CADISCH, MURDOCK, STEVENS; ASSISTANT PROFESSOR ———; MR. ———.

A. Economics

Soc. Sci. 1 y. *Elements of Social Science* (6)—Credit not given unless the full-year course is completed. An orientation course in Social Science. Open to Freshmen and Sophomores. If taken by Juniors or Seniors only two credits per semester will be granted.

This course deals with the basis and nature of society; the process of social evolution; the economic organization of society; the rise of government and law as institutions; and the nature and extent of social control of man's activities. It forms the foundation upon which the principles of economics, the principles of sociology and the science of government are based.

ECON. 2 s. *Economic Geography and Industry* (3)—Three lectures.

An examination of the principal geographical phenomena which form the basis of the economic life of man. The principal natural resources utilized in modern civilization; their distribution upon the surface of the earth in characteristic regions, the development of those regions industrially; routes of trade between the major producing regions.

ECON. 3 f. *Economic History of England* (3)—Three lectures.

A study of the general development of agriculture, industry, and commerce in England from the tenth century to the present time. The course is designed to show the gradual evolution of an industrial society, and to trace those changes by which modern England has attained her present economic position.

ECON. 4 s. *Economic History of the United States* (3)—Three lectures.

Attention is given to colonial agriculture, industry and trade as an introduction to the course. After 1789 the main lines of study are the banking, transportation and tariff history of the United States, with special attention to the development of the natural resources, the rise of manufacturers, and the expansion of corporate methods in industry and trade.

ECON. 5 f or s. *Principles of Economics* (3)—Three lectures and recitations. Prerequisite, Soc. Sci. 1.

A study of the general principles of economics; production, exchange, distribution and consumption of wealth; land and labor problems; monopolies, taxation and other similar topics.

ECON. 5 A s. *Principles of Economics* (3)—Three lectures and recitations. The general principles of economics offered for the convenience of Agricultural students, with or without the prerequisite of Soc. Sci. 1. Open to other students as an elective.

ECON. 5 E f. *Principles of Economics* (3)—Three lectures and recitations. The general principles of economics adapted to the needs of engineering students, with or without the prerequisite of Soc. Sci. 1.

ECON. 6 s. *Practical Economic Problems* (3)—Three lectures or recitations.

A continuation of Economics 5 f, with emphasis on the study of modern economic problems. Among the problems discussed are the following: Foreign commerce, the business cycle, trusts, labor problems, railroads, banking reform, taxation, public ownership, socialism and social reform.

For Advanced Undergraduates and Graduates

ECON. 102 f. *Money and Credit* (2)—Two lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5.

A study of the origin, nature, and functions of money, monetary systems, credit and credit instruments, prices, interest rates, and exchanges. (Cadisch.)

ECON. 103 s. *Principles of Banking* (2)—Two lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5.

Principles and practice of banking in relation to business, commercial banking, trust companies, savings banks, agricultural financial organizations, Federal Reserve system. (Cadisch.)

ECON. 106 f. *Investment Principles* (3)—Three lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5.

Classes of securities, stocks and bonds, railroad, public utility, real estate securities, government, state, and municipal bonds, stock and bond houses, taxation of investments. (Cadisch.)

ECON. 110 f. *Public Finance* (2)—Three lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5.

The nature of public expenditures, sources of revenue, the principles of taxation, an examination of types of taxes to determine their effects upon the individual and the community. Federal taxation in the United States, public credit, national debt, and budget of the United States. (May not be offered 1927-1928.) ()

ECON. 115 f. *Business Organization* (3)—Three lectures and recitations. Prerequisite, Soc. Sci. 1.

A general survey of the principles of business organization and administration. Forms of organization, management of finances, of labor, of buying and selling. Credit as a factor in business. Elementary business analysis. (Stevens.)

ECON. 116 s. *Corporation Finance* (3)—Three lectures, problems and assignments. Prerequisite, Soc. Sci. 1. (Should be preceded by Econ. 115 f when practicable.)

Methods employed in the financial management of a business with especial reference to the problems of the moderate sized concern. The

legal forms of organization; incorporation; interior organization; promotion; permanent capital; working capital; borrowing operations; customer and employee ownership; financial statements and their interpretation; budgeting; the business cycle; forecasting; consolidation; reorganization; prevention of manipulation by officers, directors and stockholders. (Stevens.)

ECON. 118 f. *Business Law* (3)—Three lectures and recitations.

The aim of this course is to train students for practical business affairs by giving the legal information necessary to prevent common business errors. Some phases of the work are, requisites and forms of contracts and remedies for their breach; negotiable instruments, agency, partnership, corporations, real and personal property, sales, mortgages, and insurance. (Carpenter.)

ECON. 119 s. *Business Law* (3)—Three lectures and recitations (continuation of Econ. 118 f). Prerequisite, Econ. 118 f. (Carpenter.)

ECON. 120 y. *General Accountancy* (6)—Three lectures with problems.

The fundamental principles of single and double entry bookkeeping; subsidiary records and controlling accounts; partnership accounts and adjustments; corporation accounts; sinking funds; voucher systems; manufacturing accounts. Preparation of balance sheet. (Stevens.)

ECON. 121 s. *Railway Transportation* (3)—Three lectures or recitations. Follows Econ. 5 E. Prerequisite, Econ. 5.

Development of the railway net of the United States; railroad finance and organization; problems of railway maintenance and method of conducting transportation; theory of railway rates; personal and local discrimination; geographical location and market competition; railway agreements; regulation by State and Federal governments; recent legislation. (———)

ECON. 122 s. *Public Utilities* (2)—Three lectures or recitations. Prerequisite, Econ. 5.

An examination of the fundamental basis for the concept of certain forms of business as peculiarly essential to the public welfare. Problems of rates, management and finance of corporations engaged supplying electricity, gas, street railway, telegraph and telephone service to the public. Government regulation and supervision of rates and finance. (———)

ECON. 125 s. *Life Insurance* (2)—Two lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5 (alternate years, offered in 1927-1928).

Nature and use of life insurance, classification of policies, mortality tables, calculation of premiums, reserves, and dividends, loading, fraternal, assessment, industrial, disability and group insurance. (Cadisch.)

ECON. 126 s. *Property Insurance* (2)—Two lectures and recitations. Prerequisites, Soc. Sci. 1, Econ. 5 (alternate years, offered in 1928-1929).

Fire, marine, automobile, and miscellaneous forms of property insurance. Rates, reserves, underwriters, agencies and brokers, reinsurance. (Cadisch.)

ECON. 150 f. *Industrial Organization of Society* (3)—Three lectures or recitations. Prerequisites, Soc. Sci. 1, Econ. 5.

The origin and evolution of industrial societies; the nature of labor and capital; division of labor; appropriation of materials and forces; property; the industrial revolution; modern industry. (Lee.)

ECON. 155 s. *International Economic Relations* (3)—Three lectures or recitations (alternates with Econ. 230 s). Not given 1927-1928.

Control of strategic raw materials; economic interdependence; international trade; economic development of backward areas through international co-operation. (Lee.)

(For description of the following four courses, see *Agricultural Economics*, page —.)

A. E. 101 f. *Agricultural Economics* (3).

A. E. 102 s. *The Marketing of Farm Products* (3).

A. E. 103 f. *Co-operation in Agriculture* (3).

A. E. 104 s. *Transportation of Farm Products* (3).

For Graduates

ECON 201 y. *History of Economic Theory* (4)—Two lectures and assignments each semester. Prerequisite, Econ. 5.

History of economic doctrines and theories from the eighteenth century to the modern period, with special reference to the theories of value and distribution. (———.)

ECON. 220 y. *The Problems of Labor and Employment* (4)—Two lectures and assignments each semester. Prerequisite, general knowledge of the field of Sociology and Economics.

A study of labor from the point of view of the employer, the employee and the public; the conflicts between labor and capital; methods employed to obtain industrial peace. (———.)

ECON. 230 s. *Far Eastern Economics and Finance* (3)—Three lectures or discussion periods. (Alternates with Econ. 155 s. Given in 1927-1928.) Open to qualified seniors.

A study of the social, economic and financial development of the principal countries of the Far East, with particular emphasis upon economic movements in China, Japan and Siberia, and the relation of these areas to the nations of the West. (Lee.)

B. Sociology

Soc. 2 f. *Anthropology* (2)—Two lectures and assignments. Prerequisite, Soc. Sci. 1.

A study of the physical and cultural evolution of man; the races of man, language, primitive warfare and economic activities; prehistoric archeology; the beginnings of society.

Soc. 3 s. *Ethnology* (3)—Three lectures and assignments. Prerequisites, Soc. Sci. 1. Should be preceded by Soc. 2.

A comparative study of the culture, customs and social institutions of savage, barbarous and civilized tribes and nations; population movements and racial distribution.

For Advanced Undergraduates and Graduates

Soc. 104 f. *General Sociology* (3)—Three lectures and assignments. Prerequisite, Soc. Sci. 1. Should be preceded by Soc. 2.

A study of the fundamental principles of the science of society; development of early industrial, religious, family and regulative institutions. (Murdock.)

Soc. 106 s. *American Population* (3) — Three lectures and assignments. Prerequisites, Soc. Sci. 1 and Soc. 104. (Alternates with Soc. 108 s. Not given 1927-1928.)

Growth and composition of American population; problems of race adjustment; the Negro; the Indian; the Immigrant; the Oriental. (Murdock.)

Soc. 108 s. *Social Adaptation* (2)—Two lectures and assignments. Prerequisites, Soc. Sci. 1 and Soc. 104. (Alternates with Soc. 106 s. Given 1927-1928.)

A study of methods, both utopian and practical, for bringing about adjustments in society; utopias; communistic societies; socialism; philanthropy; social legislation; social insurance; eugenics; applied science. (Murdock.)

Ed. 105 f. *Educational Sociology* (3).
(See *Education*.)

For Graduates

Soc. 201 s. *Sociological Systems* (2).
A comparative survey of the most important sociological literature. (Department. Not given 1927-1928.)

Soc. 202 f. *Marriage and the Family* (3)—Three lectures and a substantial amount of outside reading. Open to graduates and to selected Seniors who have had a substantial number of advanced courses in Social Science.

An ethnological study of the institutions of marriage and the family; their primitive beginnings and their evolution into modern forms. (Murdock.)

Soc. 204 s. *Development of Primitive Religion* (3)—Three lectures and a substantial amount of outside reading. Open to graduates and to selected Seniors who have had a substantial number of advanced courses in Social Science.

An ethnological study of primitive religion; primitive mental reactions; animistic conceptions; development of religious ideas, the cult and the priesthood. (Murdock.)

Ag. Ed. 203 s. *Rural Community Surveys* (3-5).

(See *Agricultural Education and Rural Life*.)

EDUCATION

PROFESSORS SMALL, COTTERMAN; ASSISTANT PROFESSOR LONG;

MR. BROWNING, MR. DAY, MISS BRUMBAUGH, MISS SISK.

A. History and Principles

Ed. 1 y. *Educational Guidance* (2)—One lecture a week. Required of students registered in the College of Education; elective for others.

This course is designed to assist students in adjusting themselves to the demands and problems of college and professional life and to guide them in the selection of college work during subsequent years. Among the topics discussed are the following: student finances; student welfare; intellectual ideals; recreation and athletics; general reading; student organization; student government; the curriculum; election of courses; the selection of extra curricular activities.

Ed. 2 f. *Public Education in the United States* (2)—Required of all Sophomores in Education.

A study of the theory and practice of public education in the United States as it has been developed and is now organized. The emphasis will be on elementary education and secondary education, with proportionate treatment of vocational education and relations of elementary and secondary education to higher education.

Ed. 3 s. *Educational Hygiene* (2)—Open to Sophomores and Juniors. Required of Sophomores in Education. Seniors taking this course will receive but one credit.

Elements of general, individual and group hygiene; causes of health and disease; habits; knowledge and ideals of health; health as an objective of education.

For Advanced Undergraduates and Graduates

Ed. 101 f. *Educational Psychology* (3)—Open to Juniors and Seniors. Required of all Juniors in Education.

General characteristics and use of original tendencies; principles of mental development; the laws and methods of learning; experiments in rate of improvement; permanence and efficiency; causes and nature of individual differences; principles underlying mental tests; principles which should govern school practices. (Browning.)

Ed. 102 s. *Technic of Teaching* (3)—Three lectures and one laboratory period. Required of Juniors in Education. Prerequisite, Ed. 101.

The nature of educational objectives; steps of the lesson plan; observation and critiques; survey of teaching methods; type lessons; lesson planning; class management. (Long.)

Ed. 103 s. *Principles of Secondary Education* (3)—Required of all Seniors in Education. Prerequisites, Ed. 101, Ed. 102 and full Senior standing.

Evolution of secondary education; articulation of the secondary school with the elementary school, college, technical school, and with the com-

munity and the home; the junior high school; programs of study and the reconstruction of curricula; teaching staff; student activities. (Small.)

Ed. 104 f. *History of Education* (3)—Senior Elective.

History of the evolution of educational theory, institutions and practices. Emphasis is upon the modern period. (Small.)

Ed. 105 f. *Educational Sociology* (3)—Three lectures a week.

The sociological foundations of education; the major educational objectives; the function of educational institutions; the program of studies; objectives of the school subjects; group needs and demands; methods of determining educational objectives. (Cotterman.)

Ed. 106 s. *Advanced Educational Psychology* (3)—Prerequisites, Ed. 101 and Ed. 102. The latter may be taken concurrently with Ed. 106.

Principles of genetic psychology; nature and development of the human organism; development and control of instincts. Methods of testing intelligence; group and individual differences and their relations to educational practice. Methods of measuring rate of learning; study of typical learning experiments. (Browning.) Not given 1927-1928.

Ed. 107 f. *Educational Measurements* (3)—Prerequisites, Ed. 101 and Ed. 102.

A study of typical educational problems involving educational scales and standard tests. Nature of tests, methods of use, analysis of results and practical applications in educational procedure. Emphasis will be upon tests for high school subjects. (Browning.)

Ed. 108 s. *Mental Hygiene* (3)—Prerequisites, Ed. 101 or Psychol. 1 or equivalent.

Normal tendencies in the development of character and personality. Overcoming problems of adjustment to school and society; obsessions, fears, compulsions, conflicts, inhibitions and compensations. Methods of personality analysis. (Browning.)

For Graduates

Ed. 201 y. *Seminar in Education* (6)—(The course is organized in semester units.)

Problems in educational organization and administration. Study of current literature; individual problems. (Small.)

Ed. 202 f. *College Teaching* (3)—Three lectures a week.

Analysis of the work of the college teacher; objectives; nature of subject matter; nature of learning; characteristics of college students; methods of college teachers; measuring results; extra course duties; problems; investigations; reports. (Cotterman.)

Ed. 203 s. *Problems in Higher Education* (3)—One double period a week. Lectures, surveys and individual reports. Prerequisite, Ed. 202 f.

American collegiate education; status of the college teacher; collegiate education in foreign countries; demands upon institutions of higher learning; tendencies in the reorganization of collegiate education; curriculum problems; equipment for teaching. (Cotterman.) Not given 1927-1928.

Ed. 204 s. *Chemical Education* (2)—Two lectures a week. Open to graduate students majoring in chemistry. Prerequisites, Ed. 101 and Ed. 202.

The latest developments in the field of chemical education dealing with methods, laboratory design, equipment, etc. Required of all students qualifying for college chemistry teaching. (Gordon.)

B. Methods in Arts and Science Subjects (High School)

Ed. 110 y. *English in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach English. Prerequisites, Ed. 101 and 102.

Objectives in English in the different types of secondary schools; selection of subject matter; State requirements; interpretation of the State Course of Study in terms of modern practice and group needs; organization of materials; lesson plans; measuring results; observations; class teaching; critiques. (Sisk.)

Ed. 111 y. *History and Civics in Secondary Schools* (6) — Special methods and supervised teaching. Required of Seniors preparing to teach history. Prerequisites, Ed. 101 and 102; H. 1-2 y. and H. 3-4 y.

Objectives of history and civics in secondary schools; selection of subject matter; parallel reading; State requirements and State courses of study; the development of civics from the community point of view; reference books, maps, charts and other auxiliary materials; the organization of materials; lesson plans; measuring results; observations; class teaching; critiques. (Long.)

Ed. 112 y. *Foreign Language in Secondary Schools* (6) — Special methods and supervised teaching. Required of Seniors preparing to teach foreign language. Prerequisites, Ed. 101 and 102.

Objectives of foreign language in secondary schools; selection of subject matter; State requirements and State courses of study; the organization of material for teaching; lesson plans; special devices and auxiliary materials; observation; class teaching; critiques. (———.)

Ed. 113 y. *Mathematics in Secondary Schools* (6)—Special methods and supervised teaching. Required of Seniors preparing to teach mathematics. Prerequisites, Ed. 101 and 102.

Objectives of mathematics in secondary schools; selection of subject matter; State requirements and State courses of study; proposed reorganizations; lesson plans; measuring results; observations; class teaching; critiques. (Brumbaugh.)

Ed. 114 y. *Science in Secondary Schools* (6)—Special methods and supervised teaching. Required of Seniors preparing to teach science. Prerequisites, Ed. 101 and 102.

Objectives of science in secondary schools; selection of subject matter; State requirements and State courses of study; sources of materials; the organization of materials for instruction; methods of the class period; lesson plans; the preparation and organization of laboratory instruction; note books; science clubs; observation; class teaching; critiques. (Brumbaugh.)

ENGINEERING

PROFESSORS JOHNSON, GWINNER, CREESE, STEINBERG; ASSOCIATE PROFESSOR NESBIT; ASSISTANT PROFESSORS HODGINS, HOSHALL, SKELTON, DANTZIG; MR. PYLE, MR. HENNICK.

Civil Engineering

C. E. 101 f. *Elements of Railroads* (3)—Two lectures and one laboratory period. Prerequisite, Surv. 2. Required of Juniors in Civil Engineering.

The theory and practice of railroad surveys, alignment and earthwork. Preliminary steps toward complete plans for a short railroad. (Skelton.)

C. E. 102 s. *Elements of Design of Steel Structures* (5)—Four lectures and one laboratory period. Prerequisite, Mech. 1, 2. Required of Juniors in Civil Engineering.

Design of steel beams and columns. Analysis of stresses in roof trusses, plate girders, bridge trusses and steel building. The preliminary steps toward complete design of these structures. (Skelton.)

C. E. 103 s. *Elements of Steel Design* (2)—One lecture and one laboratory period. Required of Juniors in Mechanical Engineering.

Design of steel beams and columns. Analysis of roof trusses, plate girders and traveling cranes. Particular application to industrial buildings. (Skelton.)

C. E. 104 y. *Design of Steel Structures* (6)—Two lectures and one laboratory period. Prerequisite, C. E. 102. Required of Seniors in Civil Engineering.

A study of the trusses in movable, cantilever, continuous, suspension and arch bridges, a continuation of C. E. 102. (Skelton.)

C. E. 105 y. *Design of Masonry Structures* (8)—Three lectures and one laboratory period. Prerequisite, Mech. 2. Required of Seniors in Civil Engineering.

The theory and practice of the design of structures of stone and of reinforced concrete; with applications to beams, slabs, columns, retaining walls, dams, arches and bridges. The preparation of plans and bills of material. (Steinberg.)

C. E. 106 y. *Highways* (8)—Three lectures and one laboratory period. Prerequisites, Surv. 3, Mech. 2. Required of Seniors in Civil Engineering.

Location, construction and maintenance of roads and pavements. Highway contracts and specifications, estimates and costs, highway work, highway legislation, highway economics and highway transportation.

The course will include, in addition to lecture and classroom work, preparation of plans and specifications for special projects connected with highways. (Johnson.)

C. E. 107 y. *Sanitation* (6)—Three lectures. Prerequisite, Mech. 2. Required of Seniors in Civil Engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Pyle.)

C. E. 108 y. *Railroads* (2) — One laboratory period. Prerequisite, C. E. 101. Alternative for Seniors in Civil Engineering.

The theory and practice of railroad design, construction, maintenance and economics; a continuation of C. E. 101. Field and drafting-room work consists of a reconnaissance and survey of a short railroad and preparation of the map, profiles and estimates. (Skelton.)

C. E. 109 y. *Sanitary Science (Public Health)* (2)—One laboratory period. To be taken co-ordinately with C. E. 107. Alternative for Seniors in Civil Engineering.

State and municipal sanitary laws, organization and functions of State and municipal health departments, public health surveys. Also in co-ordination with C. E. 107; complete plans are prepared for water supply and sewerage disposal systems for a given community. (Pyle.)

C. E. 110 y. *Drainage and Irrigation* (2) — One laboratory period. Prerequisite, Mech. 2. Alternative for Seniors in Civil Engineering.

The application of engineering principles to the design and construction of drainage and irrigation works. Field and drafting-room work consists of surveying, designing and mapping of a proposed drainage project. (Pyle.)

Drafting

Dr. 1 y. *Engineering Drafting* (2)—One laboratory period. Required of all Freshmen in Engineering.

Freehand Drawing—Lettering, exercises in sketching of technical illustrations and objects, proportion and comparative measurements.

Mechanical Drawing—Use of instruments, projections and working drawings, drawing to scale in pencil and in ink, topographic drawing, tracing and blue printing.

Dr. 2 y. *Descriptive Geometry* (4)—Two laboratory periods. Prerequisite, Dr. 1. Required of all Sophomores in Engineering.

Orthographic projection as applied to the solution of problems, relating to the point, line and plane, intersection of planes with solids and development. Generation of surfaces; planes, tangent and normal to surfaces; intersection and development of curved surfaces. Shades and shadows, perspective, map projection.

Electrical Engineering

E. E. 101 f. *Industrial Application of Electricity* (3)—Three lectures. Prerequisites, Phys. 2, Math. 7.

The principles and practice of the application of direct and alternating current generators and motors to specific industrial processes. (Creese.)

E. E. 102 y. *Direct Currents* (10)—Three lectures and two laboratory periods. Prerequisite, Phys. 2.

Principles of design, construction and operation of direct current generators and motors and direct current control apparatus. The construction, characteristics and operation of primary and secondary batteries and the auxiliary control equipment.

Experiments on the calibration of laboratory instruments, the manipulation of precision instruments, battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 103 y. *Electrical Machine Design* (2)—One laboratory period. Prerequisites, Phys. 2, Math. 7 and to take concurrently with E. E. 101. Materials of construction and design of the electric and magnetic circuits of direct current generators and motors. (Hodgins.)

E. E. 104 y. *Alternating Currents* (10)—Three lectures and two laboratory periods. Prerequisite, E. E. 102.

Analytical and graphical solution of problems on single phase and polyphase circuits; construction, characteristics and operation of all types of alternating current generators and motors; switchboard appliances, the use of the oscillograph; alternating current power measurements. (Creese.)

E. E. 105 y. *Electric Machine Design* (3)—One laboratory period first semester; two laboratory periods second semester. Prerequisites, E. E. 103, M. E. 101, and to take concurrently E. E. 104.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors, principles of design of the electric and magnetic circuits of alternating current generators, motors and transformers. (Hodgins.)

E. E. 106 y. *Electric Railways and Power Transmission* (7)—Three lectures first semester; three lectures and one laboratory period second semester. Prerequisite, E. E. 102 and to take concurrently E. E. 104.

Traffic studies, train schedules, motor characteristics and the development of speed-distance and power-time curves, systems of control, motors and other railway equipment, electrification system for electric railways, including generating apparatus, transmission lines, substations and distribution of electrical energy for car operation; electrification of steam roads and application of signal systems, problems in operation from the selection of proper car equipment to the substation apparatus.

Survey of the electrical equipment required in central stations and substations, transmission of electric power, practical problems illustrating the principles of installation and operation of power machinery.

E. E. 107 y. *Telephone and Telegraphs* (7) — Three lectures first semester; three lectures and one laboratory period second semester. Prerequisite, E. E. 102 and to take concurrently E. E. 104.

History and principles of magneto telephone and variable resistance transmitter, carbon transmitter, telephone receiver, induction coils, and calling equipment. These components of the telephone then are studied as a complete unit in the local battery and common battery telephones. Magneto and common battery switchboards used in telephone exchanges, automatic telephones, and the operation of simple, duplex and quadruplex telegraphy. Solution of analytical problems on telephone transmission. In the laboratory the units are assembled and operated. (Hodgins.)

E. E. 108 y. *Radio Telegraphy and Telephony* (7)—Two lectures and one laboratory period first semester; three lectures and one laboratory

period second semester. Prerequisite, E. E. 102, and to take concurrently E. E. 104.

Principles of radio telegraphy and telephony, design, construction and operation of transmitting and receiving apparatus and special study of the use of the vacuum tube for short wave transmitting and receiving. Experiments include radio frequency measurements and the testing of various types of receiving circuits. (Creese.)

E. E. 109 y. *Illumination* (7)—Three lectures first semester; three lectures and one laboratory period second semester. Prerequisite, E. E. 102, and to take concurrently E. E. 104.

Series systems of distribution, methods of street lighting, calculation of voltage drop, regulation, weights of wire and methods of feeding parallel systems, principles and units used in illumination problems, lamps and reflectors, candle-power measurements of lamps, measurement of illumination intensities and calculations for illumination of laboratories and classrooms. (Creese.)

General Engineering Subjects

ENGR. 1 y. *Prime Movers* (4)—Two lectures. Prerequisite, Math 7. Required of all Juniors in Engineering.

Salient features of the operation of steam, gas, hydraulic and electric prime movers and pumps. Comparison of types of each, methods of assembling or setting up in place for operation. Service tests.

ENGR. 2 y. *Engineering Geology* (2)—One laboratory period. Lectures and field trips. Required of all Juniors in Engineering.

Study of common rocks and minerals, geologic processes and conditions affecting problems of water supply, bridge, railroad and highway construction, dams and reservoirs, tunnels, canals, river and harbor improvements, irrigation works and rock excavation. (Ladd.)

ENGR. 3 f. *Public Utilities* (1)—One lecture. Prerequisite, Econ. 5 E. Required of all Seniors in Engineering.

The development of public utilities, franchises, functions, methods of financing and control of public utilities. Service standards and their attainment in electric, gas, water, railway, and other utilities. The principles that have been adopted by the courts and public service commissions for the evaluation of public utilities for ratemaking and other purposes. (———.)

ENGR. 101 f. *Engineering Jurisprudence* (1) — One lecture. Required of all Seniors in Engineering.

A study of the fundamental principles of law relating to business and to engineering; including contracts, agency, sales, negotiable instruments, corporations and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

Mechanics

MECH. 1 y. *Engineering Mechanics* (7)—Three lectures and one laboratory period first semester. Two lectures and one laboratory period

second semester. Prerequisite, Math. 7. Required of Juniors in Electrical and Mechanical Engineering.

Applied Mechanics—The analytical study of statics dealing with the composition and resolution of forces, moments and couples, machines and the laws of friction, dynamics, work, energy and the strength of materials.

Graphic Statics—The graphic solution of problems in mechanics, center of gravity, moments of inertia and determination of stresses in frame structures.

Elements of Hydraulics—Flow of water in pipes, through orifices and in open channels. Determination of the co-efficient of discharge, velocity and contraction in pipes and orifices. (Steinberg, Skelton, Dantzig.)

MECH. 2 y. *Engineering Mechanics* (9)—Four lectures and one laboratory period first semester. Three lectures and one laboratory period second semester. Prerequisite, Math. 7. Required of Juniors in Civil Engineering.

This course is similar in content to Mech. 1 y, but with greater emphasis placed on strength of materials and hydraulics. (Steinberg, Skelton, Dantzig.)

MECH. 3 s. *Materials of Engineering* (2)—One lecture and one laboratory period. Prerequisites Phys 2 and to take concurrently Mech. 1. Required of all Juniors in Engineering. (Johnson and Pyle.)

The composition, manufacture and properties of the principal materials used in engineering and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement and concrete. (Johnson and Pyle.)

MECH. 4 f. *Kinematics* (3)—Two lectures and one laboratory period. Prerequisites, Math. 7 and Phys. 2. Required of Juniors in Mechanical Engineering. (Hoshall.)

The theory and practice of the kinematics of machinery, as applied to ropes, belts, chains, gears and gear teeth, wheels in trains, epicyclic trains, cams, linkwood, parallel motions. Miscellaneous mechanisms and aggregate combinations.

MECH. 101 f. *Thermodynamics* (3) — Three lectures. Prerequisites, Phys. 2, Engr. 1. Required of Seniors in Electrical Engineering. (Nesbit.)

MECH. 102 y. *Thermodynamics* (6) — Three lectures. Prerequisites, Physics 2, Engr. 1. Required of Seniors in Mechanical Engineering.

Thermodynamics as applied to properties of gases, cycles of heat, engines using gases. Properties of vapors. Entropy. The internal combustion engine. The steam turbine. Flow of fluids, and the application of thermodynamics to compressed air and refrigerating machinery. (Nesbit.)

Mechanical Engineering

M. E. 101 f. *Elements of Machine Design* (1)—One laboratory period. Prerequisites, Math. 7 and Phys. 2. Required of Juniors in Electrical Engineering.

Empirical design of machine parts. (Hoshall.)

M. E. 102 y. *Machine Design* (5)—Two lectures and one laboratory period first semester. One lecture and one laboratory period second semester. Prerequisites, Math. 7 and Phys. 2. Required of Juniors in Mechanical Engineering.

The application of the principles involved in determining the proportions and forms of machine parts. The design of bolts, screws, shafting and gears. (Hoshall.)

M. E. 103 y. *Design of Prime Movers* (6)—Two lectures and one laboratory period. Prerequisites, M. E. 102 and Engr. 1. Required of Seniors in Mechanical Engineering.

Analysis of the stresses in gas and steam engines. Proportioning the essential parts and estimating the cost of each. The steam boiler; its design and cost. (Nesbit.)

M. E. 104 s. *Design of Power Plants* (3) — Two lectures and one laboratory period. Prerequisites, Engr. 1, Mech. 101, M. E. 102. Required of Seniors in Mechanical Engineering.

The design of a complete power plant, including the layout of building and installation of equipment. The selection of types and capacities of the various units required. (Nesbit.)

M. E. 105 f. *Design of Pumping Machinery* (2)—One lecture and one laboratory period. Prerequisites, M. E. 102 and Mech. 1, 3. Required of Seniors in Mechanical Engineering. (Nesbit.)

Design of double-acting steam pumps and centrifugal pumps. Vacuum, condenser and water works pumps.

M. E. 106 s. *Engineering Finance* (2)—Two lectures. Required of Seniors in Mechanical Engineering.

Financial problems of the engineer. Cost segregation and cost analysis. Basis of price and rates. Fixed charges and operating costs. Replacement cost. Depreciation. Maintenance. Taxes and insurance. Unit cost determination. Determination of size of system for best financial efficiency. (Nesbit.)

M. E. 107 y. *Mechanical Laboratory* (2) — One laboratory period. Prerequisites, Engr. 1; Mech. 1, 3. Required of Seniors in Mechanical Engineering.

Calibration of instruments, gauges, indicator springs, planimeters, steam, gas and water meters.

Indicated and brake horsepower of steam and internal combustion engines, setting of plain valves, Corliss valves. Tests for economy and capacity of boilers, engines, turbines. Pumps and other prime movers. Feed water heaters, condensers; B. T. U. analysis of solid, gaseous and liquid fuels and other complete power plant tests.

M. E. 108 s. *Heating and Ventilation* (2)—Two lectures. Prerequisites, Engr. 1, and Mech. 1, 3. Required of Juniors in Mechanical Engineering. (Nesbit.)

The principles and methods of construction in use in various systems of heating and ventliating; the design, erection and operation of heating plants.

Shop

SHOP 1 y. *Shop and Forge Practice* (2)—One laboratory period. Required of all Freshmen in Engineering.

The use and care of wood-working tools, exercises in sawing, planing, turning and laying out work from blueprints. Patternmaking with moulding and casting demonstrations to give understanding of general principles. Forging of iron and steel, welding and making of carbon steel tools. Demonstrations in oxy-acetylene welding of steel, cast iron, brass, and aluminum, also brazing of malleable iron and steel.

SHOP 2 f. *Machine Shop Practice* (1)—One laboratory period. Prerequisite, Shop 1. Required of all Sophomores in Engineering.

Exercises in bench work, turning, planing, drilling and pipe threading.

SHOP 3 s. *Machine Shop Practice* (2)—One lecture and one laboratory period. Prerequisite, Shop 2. Required of all Sophomores in Mechanical and Electrical Engineering.

Advanced practice with standard machine shop machines. Exercises in thread cutting, surface grinding, fluting and cutting of spur and twisted gears.

Calculations of machine shop problems involving lathe and milling machines. Problems relating to methods of manufacture of machine parts by use of jigs and time-saving fixtures.

SHOP 4 f. *Foundry Practice* (1) — One laboratory period. Prerequisite, Shop 1. Required of juniors in Mechanical Engineering.

Casting in brass, aluminum and cast iron. Core making. The operation of furnace and cupola. Lectures on metals, fuels, and foundry equipment.

Surveying

SURV. 1 f. *Plane Surveying* (1)—Lecture and laboratory work. Prerequisite, Math. 7. Required of all Sophomores in Engineering.

SURV. 2 s. *Plane Surveying* (2)—Lecture and laboratory work. Prerequisite, Surv. 1. Required of Sophomores in Civil Engineering.

The theory and practice of plane surveying; including the use and adjustment of the transit, level, plane table and minor surveying instruments. Solution of practical problems in giving lines and grades for buildings, shafting and foundations, and in laying out curves. The computation of area and of earthwork, and the principles of plan and map making and map reading.

SURV. 3 f. *Advanced Surveying* (3)—One lecture and two laboratory periods. Prerequisite, Surv. 1-2. Required of Juniors in Civil Engineering.

Practical astronomy and geodetic surveying. The determination of latitude, longitude and azimuth by stellar and by solar observations. Base-line measurement and precise triangulation. City surveying. Hydrographic surveying.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR HOUSE; ASSOCIATE PROFESSORS HARMAN, HALE; ASSISTANT PROFESSOR LEMON; MR. ORDEMAN.

ENG. 1 y. *Composition and Rhetoric* (6)—Freshman year. Prerequisite, three units of high school English. Required of all four-year students.

Parts, principles and conventions of effective thought communication. Reading, study and analysis of standard contemporary prose specimens. Original exercises and themes.

ENG. 2 y. *Elements of Literature* (6)—Three lectures. Prerequisite, three units of high school English.

Examination of the principles of literary form. Study and interpretation of selected classics.

ENG. 3 f. *Advanced Composition and Rhetoric* (2) — Prerequisite, Eng. 1. Eng. 3-4 optional with Eng. 5-6 as a requirement for all students whose major is English.

Study and analysis of the best modern essays as a basis of class papers.

ENG. 4 s. *Advanced Composition and Rhetoric* (2)—Continuation of Eng. 3 f. Prerequisite, Eng. 3 f.

ENG. 5 f. *Expository Writing* (2)—Prerequisite, Eng. 1. Eng. 5-6 optional with Eng. 3-4 as a requirement for all students whose major is English.

Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers and reports.

ENG. 6 s. *Expository Writing* (2).

Continuation of Eng. 5 f. Prerequisite, Eng. 5 f.

ENG. 7 f. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 1. Required of all students whose major is English.

A general survey, with extensive reading and class papers.

ENG. 8 s. *History of English Literature* (3).

Continuation of Eng. 7 f. Prerequisite, Eng. 7 f.

ENG. 9 f. *American Literature* (3)—Three lectures. Prerequisite, Eng. 1.

Lectures on the development of American literary types. Class papers.

ENG. 10 s. *American Literature* (3).

Continuation of Eng. 9 f. Prerequisite, Eng. 9 f.

ENG. 11 f. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1. English and American poets of the latter part of the Nineteenth and of the Twentieth Century. Prerequisite, Eng. 1.

ENG. 12 s. *Modern Poets* (3).

Continuation of Eng. 11 f. Prerequisite, Eng. 11 f.

ENG. 13 f. *The Drama* (3)—Prerequisite, Eng. 1.

A study of representative plays in the development of European and American drama. Reports and term themes. Not given 1927-1928.

ENG. 14 s. *Drama* (3) — Continuation of Eng. 13 f. Prerequisite, Eng. 13 f.

ENG 15 f. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1.
An intensive study of selected plays.

ENG. 16 s. *Shakespeare* (3).

Continuation of Eng. 15 f. Prerequisite, Eng. 15 f.

ENG. 17 f. *Business English* (2)—Two lectures. Prerequisite, Eng. 1.
This course develops the best methods of effective expression, both oral and written, used in business relations.

ENG. 18 s. *Business English* (2).

Continuation of Eng. 17 f. Prerequisite, Eng. 17 f.

For Advanced Undergraduates and Graduates

ENG 118 y. *Literature of the Fourteenth Century* (4)—Prerequisite, Eng. 7 f.

Lectures and assigned readings in English literature at the close of the Middle Ages and the beginning of the Renaissance in England, including the matrical romances, ballads, and selections from Langland, Gower, and Chaucer. (Hale.)

ENG. 119 y. *Anglo-Saxon* (6)—Required of all students whose major is English.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of comparative philology and phonetics. (House.)

ENG. 122 f. *The Novel* (2)—Two lectures.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources. (House.)

ENG. 123 s. *The Novel* (2).

Continuation of Eng. 122 f. (House.)

ENG. 124 f. *English and American Essays* (2)—Two lectures.

A study of the philosophical and critical essays of England and America: Bacon, Lamb, Macaulay, Carlyle, Ruskin, Emerson, Chesterton. (House.)

ENG. 125 s. *Authorship* (2)—Two lectures. Admission to class on recommendation of instructor.

Practice in the making of literature of various types: verse, essay, fiction, drama. (House.)

ENG. 126 f. *Victorian Poets* (2).

Studies in the poetry of Tennyson, Browning, Arnold, Swinburne, and others.

ENG. 127 s. *Victorian Poets* (2).

Continuation of Eng. 126 f. (House.)

ENG. 129 f or s. *College Grammar* (2) — Required of all students whose major is English. The course is completed each semester.

Studies in the descriptive grammar of modern English, with some account of the history of forms. (Harman.)

ENG. 130 f. *The Old Testament as Literature*—Two lectures.

A study of the sources, development, and the literary types in the King James version of the Bible. (Hale.)

ENG. 131 s. *Poetry of the Romantic Age* (3)—Three lectures. Prerequisite, Eng. 7-8. A study of the Romantic movement in England as

illustrated in the works of Shelley, Keats, Byron, Wordsworth, Coleridge. (Hale.)

(This course is identical with the second semester of Comp. Lit. 105.)

For Graduates

ENG. 201. *Seminar*—Credit proportioned to the amount of work and ends accomplished. (House.)

Original research and the preparation of dissertations looking toward advanced degrees.

ENG. 202 y. *Beowulf* (4)—Prerequisite, Eng. 119.

Critical study of grammar and versification, with some account of the legendary lore. (Harman.)

ENG. 203 f. *Middle English* (2)—Prerequisite, Eng. 119.

A study of excerpts of the Middle English period, with reference to etymology and syntax. (Harman.) Not given 1927-1928.

ENG. 204 s. *Gothic* (2)—Prerequisite, Eng. 119.

A study of the forms and syntax, with readings from the Ulfilas Bible. Correlation of Gothic speech sounds with those of Old English. (House.) Not given 1927-1928.

ENTOMOLOGY

PROFESSOR CORY, MR. KNIGHT.

ENT. 1 f and s. *Introductory Entomology* (3)—Two lectures and one laboratory.

The relations of insects to past experience and future activities of the student. General principles of structural and systematic entomology. Field work and the preparation of a collection of insects. (Open to Sophomores, and to Freshmen majoring in Entomology.)

ENT. 2 f. *Insect Morphology* (3)—One lecture and two laboratory periods.

A study of the structure of insects, with special emphasis on the characters used in classification of the important orders. In preparation for systematic entomology (Ent. 3 s). Prerequisite, Entomology 1.

ENT. 3 s. *Systematic Entomology* (2)—Two laboratory periods.

Field work and the classification of the more important orders of insects. Brief amount of work on the literature of systematic entomology. Short study of the minor orders. Prerequisite, Entomology 2 f.

ENT. 4 y. *Special Problems*—Prerequisite—consult department.

The intensive investigation of some entomological subjects, the results of which are submitted as part of the requirement for graduation.

ENT. 5 s. *Insecticides and Their Application* (2)—One lecture and one laboratory. Not given 1927-1928.

The principles of insecticides, their chemistry, preparation and application; construction, care and use of spray and dusting machinery; fumigation, methods and apparatus in mechanical control. Prerequisite, Ent. 1.

ENT. 6 f. *Medical Entomology* (3)—Two lectures and one laboratory period.

The relation of insects to disease, directly and as vectors of pathogenic organisms. The control of pests of man.

ENT. 7 y. *Entomological Technique and Scientific Delineation* (2)—Not given 1927-1928.

Collecting, rearing, preserving and mounting of insects. The preparation of exhibits, materials for instruction, entomological records. Methods of illustrating, including drawing, photography, lantern slide making and projection. Useful for prospective teachers of biology as well as for the entomological student. Prerequisite, Ent. 1.

Courses for Advanced Undergraduates and Graduates

ENT. 101 y. *Economic Entomology* (3)—Three lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism and control. (Cory.)

ENT. 102 y. *Economic Entomology* (2)—Two laboratory periods.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Cory.)

ENT. 103 y. *Seminar* (1)—Time to be arranged.

Presentation of original work, book reviews and abstracts of the more important literature. (Cory.)

ENT. 104 y. *Insect Pests of Special Groups* (4).—Not given 1927-1928.

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology. Prerequisite, Ent. 1.

Insect Pests of: 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. Nos. 1 and 2 offered in 1926 and such others as requests may indicate to be in demand. (Cory-Knight.)

Graduate Students

ENT. 201. *Advanced Entomology* (2).

Studies of minor problems in morphology, taxonomy and applied entomology, with particular reference to preparation for individual research. (Cory.)

ENT. 202 y. *Research in Entomology* (6-10).

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and be published in bulletin form. A dissertation, suitable for publication, must be submitted at the close of the studies as a part of the requirements for an advanced degree. (Cory.)

FARM FORESTRY

PROFESSOR BESLEY.

FOR. 1 s. *Farm Forestry* (3) — Two lectures and one laboratory period. Senior year. Prerequisite, Bot. 101.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees, forest protection, management, measurement and utilization of forest crops, nursery practice and tree planting. The work is conducted by means of lectures and practice in the woods.

FARM MANAGEMENT

PROFESSOR W. T. L. TALIAFERRO.

F. M. 1 s. *Farm Accounting* (3)—Two lectures and one laboratory period. Open to Juniors and Seniors.

A concise practical course in the keeping of farm accounts and in determining the cost of farm production.

F. M. 2 f. *Farm Management* (4)—Four lectures.

The business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in the several technical courses and to apply them to the development of a successful farm business. Prerequisite, F. M. 1 s.

See also Agricultural Economics, Page 142.

FARM MECHANICS

PROFESSOR CARPENTER.

F. MECH. 101 f. *Farm Machinery* (3)—Two lectures and one laboratory period.

A study of the design and adjustments of modern horse and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment and repair.

F. MECH. 102 s. *Gas Engines, Tractors and Automobiles* (4)—Three lectures and one laboratory period.

A study of the design and operation of the various types of internal combustion engines used in farm practice.

F. MECH. 103 f. *Advanced Gas Engines* (2)—One lecture and one laboratory period. Prerequisite, F. Mech. 102.

An advanced study of the four-cylinder gasoline engine.

F. MECH. 104 f. *Farm Shop Work* (1)—One laboratory period.

A study of practical farm shop exercises offered primarily for prospective teachers of vocational agriculture.

F. MECH. 105 f. *Farm Buildings* (2)—Two lectures.

A study of all types of farm structures, also of farm heating, lighting, water supply and sanitation systems.

F. MECH. 107 s. *Farm Drainage* (2)—One lecture and one laboratory period.

A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

GEOLOGY

PROFESSOR BRUCE.

GEOL. 1 f. *Geology* (3)—Two lectures and one laboratory period.

A textbook, lecture and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agricultural students in preparation for technical courses, it may also be taken as part of a liberal education.

GREEK

PROFESSOR SPENCE,

GREEK 1 y. *Elementary Greek* (8)—Four lectures or recitations each semester.

Drill and practice in the fundamentals of Greek grammar and the acquisition of a vocabulary, with translation of simple prose.

GREEK 2 y. *Greek Grammar, Composition and Translation of Selected Prose Work* (8)—Four lectures or recitations each semester. Prerequisite, Gk. 1 or two entrance units in Greek.

HISTORY AND POLITICAL SCIENCE

PROFESSORS CROTHERS, ANDREWS, SPENCE; ASSOCIATE PROFESSOR SCHULZ.

A. History

H. 1 y. *Modern European History* (6) — Lectures, recitations and assignments each semester.

The object of the course is to acquaint students with the chief events in European History during the modern period. The lectures are arranged so as to present a comparative and contrastive view of the most important events during the period covered.

H. 3 f-4 s. *American History* (6)—Lectures, recitations and assignments. Open to Sophomores and advanced undergraduates.

An introductory course in American History from the discovery of the New World to the present time. (Crothers.)

H. 5 y. *History of England and Greater Britain* (6) — Lectures, recitations and assignments. Open to Freshmen and others.

A survey course of English History.

For Advanced Undergraduates and Graduates

H. 101 f. *American Colonial History* (3)—Three lectures and assignments. (Crothers.)

A study of the political, economic and social development of the American people from the discovery of America through the formation of the Constitution.

H. 102 s. *Recent American History* (3) — Lectures and recitations. (Crothers.)

The history of national development from the close of the reconstruction period to the present time.

H. 103 f-104 s. *World History since 1914* (6).

A study of the principal nations of the world since the outbreak of the World War. (Andrews.) (Alternates with H. 105-106.)

H. 105 f-106 s. *History of Eastern Europe* (6).

Besides the political and institutional development, racial, social, economic and religious conditions in each country will be described. (Andrews.) (Alternates with H. 103-104. Not given 1927-1928.)

H. 107 s. *History of Maryland* (2)—Two lectures or recitations.

A study of the Colony of Maryland and its development into statehood. (Spence.) May not be given 1927-1928.

H. 108 f. *Ancient Civilization* (3)—Three lectures or recitations. Required of students taking a major or minor in Classical Languages.

Treatment of ancient times, including Geography, Mythology and Philosophy. (Spence.)

H. 109 f-110 s. *Seminar in American History* (4).

Research in eighteenth century colonial history. For graduates and approved Seniors. (Crothers.)

H. 111 f-112 s. *Seminar in European History* (2-4).

Research in problems of modern European history. For graduates and approved Seniors. (Andrews.) (Credits determined by work done.)

B. Political Science

Soc. Sci. 1 y. *Elements of Social Science* (6). (For description of course, see Economics and Sociology, Page 160.)

POL. SCI. 2 f. *Government of the United States* (3)—Three lectures and recitations. Prerequisite, Soc. Sci. 1.

A study of the Government of the United States. Evolution of the Federal Constitution; function of the Federal Government.

POL. SCI. 3 s. *Governments of Europe* (3)—Three lectures and recitations. Prerequisites, Soc. Sci. 1; Pol. Sci. 2.

A rapid survey and comparative study of the political organization of the principal states of Europe. Classification of forms, separation of powers.

For Advanced Undergraduates and Graduates

POL. SCI. 105 s. *American Municipal Government* (2)—Two lectures and recitations. Prerequisites, Soc. Sci. 1; Pol. Sci. 2.

A study of American City Government; organization and administration; city manager and commission plans; initiative, referendum and recall.

POL. SCI. 110 y. *Constitutional Law and History of the United States* (4)—Two lectures and cases each semester. Prerequisites, Soc. Sci. 1;

Pol. Sci. 2. Alternates with Pol. Sci. 111. Seniors and graduate students.

A study of the historical background of the Constitution and its interpretation. (Schultz.) (May not be given 1927-1928.)

POL. SCI. 111 y. *International Law* (4)—Two lectures, assigned reading and cases each semester. Prerequisites, Soc. Sci. 1; Pol. Sci. 2. Alternates with Pol. Sci. 110. Seniors and graduate students.

A study of the sources, nature and sanction of international law, peace, war and neutrality. (Schultz.) (May not be given 1927-1928.)

POL. SCI. 112 y. *American Diplomacy* (4)—Two lectures and cases. Prerequisites as for Pol. Sci. 111.

A study of American foreign policy. (Schulz.)

POL. SCI. 116 f. *Political Parties in the United States* (2)—Three lectures and assigned readings. Prerequisites, Soc. Sci. 1; Pol. Sci. 2. (May be omitted 1927-1928.)

The development and growth of American political parties. Party organization and machinery. (Schulz.)

HOME ECONOMICS

PROFESSORS MOUNT, MCFARLAND; ASSOCIATE PROFESSOR WELSH;

ASSISTANT PROFESSOR MURPHY.

H. E. 1 y. *Home Economics Lectures* (1)—One lecture a week. General survey of the field of Home Economics.

For Advanced Undergraduates

H. E. 101 s. *Seminar* (3)—Three lecture periods.

Book reviews and abstracts from scientific papers and bulletins relating to Home Economics, together with criticisms and discussion of the work presented.

Textiles and Clothing

H. E. 11 s. *Elementary Textiles and Clothing* (3)—Two recitations and one laboratory period. History of Textile Fibers; identification of textile materials; variation of weave in regard to beauty and strength; use and value of fibers for clothing and household furnishings, clothing economics.

Review of fundamental stitches; darning and patching; practice in hand and machine sewing; use of machine attachments; study of commercial patterns.

For Advanced Undergraduates

H. E. 111 f. *Pattern Designing and Dressmaking* (4)—One lecture and three laboratory periods. Prerequisite, H. E. 11.

Drafting, cutting, fitting and designing of patterns. Construction of woolen dress from pattern designed in class, construction of silk dress, made-over dress, dinner or evening gown. Clothing Economics. (McFarland.)

H. E. 112 s. *Advanced Clothing* (3)—One lecture and two laboratory periods. Prerequisite, H. E. 111.

Designing and dress construction continued. Special problems in fitting worked out. (McFarland.) Not given 1927-1928.

H. E. 113 f or s. *Millinery* (2)—Two laboratory periods. Millinery stitches and simple trimming; drafting of patterns for hats; making and covering of frames; making hats in velvet, silk, straw and transparent materials; renovation of materials. (Murphy.)

H. E. 114 s. *Practice in Textile and Clothing Problems* (5)—Opportunity for commercial experience in shops, laboratories, etc. Prerequisite, H. E. 111. (McFarland.)

Art

H. E. 21 f. *Composition and Design* (3)—Three laboratory periods. Space division and space relation; color schemes and exercises; original designs in which lines, values and colors are put together to produce fine harmony; perspective principles.

H. E. 22 s. *Still Life* (1)—One laboratory period. Drawing objects in charcoal and color. Emphasis on form, light and dark and shadows. Offered alternate years. Prerequisite, H. E. 21.

H. E. 23 s. *Figure Sketching* (1)—One laboratory period. Alternates with Still Life.

Figures in charcoal and pencil. Emphasis on action, form and value relation. Prerequisite, H. E. 21.

H. E. 24 s. *Costume Design* (3)—One lecture and two laboratory periods. Prerequisite, H. E. 21.

Appropriate dress; application of color, harmony and proportion of parts to costumes designed in ink and water color; history of costume.

For Advanced Undergraduates

H. E. 121 s. *Home Architecture and Interior Decoration* (3)—Two lectures and one laboratory period. Prerequisite, H. E. 21.

Style of architecture; application of colors in Home Decorations; furnishings from a sanitary, economical and artistic point of view. (Murphy.)

H. E. 122 s. *Applied Art* (1)—One laboratory period.

Review of fancy stitches applied in embroidery, lace and stencils, to lamp shades, table runners, etc. (Murphy.) Not given 1927-1928.

H. E. 123 s. *Basketry* (1)—One laboratory period.

A study of the various weaves and their application in reed pieces; manipulation of materials in raffia work.

Foods and Nutrition

H. E. 31 y. *Elementary Foods* (6)—One recitation and two laboratory periods. Prerequisite, Inorganic Chemistry.

Principles and processes of Cookery. Production and composition of foods. Planning and serving of meals.

For Advanced Undergraduates

H. E. 131 f. *Nutrition* (3)—Three recitations. Prerequisite, H. E. 31 and Chemistry of Foods.

Food requirements and metabolism. Diets for the normal person. (Welsh.)

H. E. 132 s. *Nutrition* (3)—Two lectures and one laboratory period. Prerequisite, H. E. 131.

Diets and metabolism of the abnormal person; invalid cookery; feeding of children. (Welsh.)

H. E. 133 f. *Preservation and Demonstration of Foods* (2) — One lecture and one laboratory period. Prerequisite, H. E. 31.

Canning and preserving; practice in demonstration. (Welsh.)

H. E. 134 s. *Advanced Foods* (3)—One lecture and two laboratory periods. Prerequisite, H. E. 31.

Experimental work in food and cookery; fancy cookery; catering. (Welsh.)

H. E. 135 s. *Practice in Food Problems* (5)—(Welsh.)

Home and Institutional Management

For Advanced Undergraduates

H. E. 141 s. *Home Management and Mechanics of the Household*.

The operation and maintenance of the household; its furnishings and equipment. Household budgets and accounts. This course will be given in conjunction with Management of the Home and the credits are included in that course. (Murphy.)

H. E. 142 s. *Management of the Home* (5)—Six weeks' experience in keeping house in a household of six students. (Murphy.)

H. E. 143 f. *Marketing and Buying* (2)—One lecture and one laboratory period.

Food budgets and accounts. Selection, purchasing and care of foods for the family. Lectures will be given by specialists in the Department of Dairy Husbandry, Animal Husbandry and Horticulture, in the College of Agriculture, on the choice and care of dairy products, meats, vegetables and fruits. (Mount.)

H. E. 144 y. *Institutional Management* (6)—Three recitations.

The organization and management of institutional dining hall dormitories and laundries, and of commercial cafeterias, tea-rooms and restaurants. (Mount.)

H. E. 145 f. *Practice in Institutional Management* (5)—Prerequisite, H. E. 144 y.

Practice work in the University Dining Hall, in a Tea-Room, or in a Cafeteria. (Mount.)

H. E. 146 s. *Advanced Institutional Management* (3)—Prerequisite, H. E. 145 f. One recitation weekly and individual conferences with instructor.

Special problems in Institutional Management. (Mount.)

Home Economics Extension

H. E. 151 f. *Field Practice in Home Economics Extension* (5)—Given under direction of Miss Venia Kellar, State Home Demonstration Agent.

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON, MISS BUCKEY.

H. E. ED. 100 y. *Education of Women* (4).

History of the family; the effect of civilization upon the organization of the home and the status of its members; educational opportunities for women; training for citizenship, professions and the home. (McNaughton.)

H. E. ED. 101 y. *Teaching Secondary Vocational Home Economics: Methods and Practice* (6)—Prerequisite, Ed. 102.

Objectives of vocational home economics; the Smith-Hughes law and its administration; a survey of the needs of the high school girl; adaptation of the state course of study to the needs of the community; methods of instruction; use of the home project; use of illustrative material; improvement of home economics library; study of equipment; outline units of instruction; lesson plans; observation; participation teaching, conferences and critiques. (McNaughton.)

H. E. ED. 102 f. *Child Study*.

Child psychology with observation in the Nursery Schools in Washington; books, games and music for children; physical care; making of children's clothes. (McNaughton.)

HORTICULTURE

PROFESSORS AUCHTER, GEISE; ASSOCIATE PROFESSOR THURSTON; ASSISTANT PROFESSORS WHITEHOUSE, BOSWELL; MR. YODER.

A. Pomology

HORT. 1 f. *Elementary Pomology* (3)—Two lectures and one laboratory period.

A general course in pomology. The proper location and site for an orchard are discussed. Varieties, planting plans, inter-crops, spraying, cultural methods, fertilizing methods, thinning, picking, packing and marketing are also given consideration. The subjects are discussed for apples, peaches, pears, plums, cherries and quinces. The principles of plant propagation as applied to pomology are discussed.

HORT. 2 f. *Systematic Pomology* (3)—Two lectures and one laboratory period. Prerequisite, Hort. 1.

The history, botany and classification of fruits and their adaptation to Maryland conditions. Exercises are given in describing and identifying the leading commercial varieties of fruits. Students are required to help set up the fruit show each year.

HORT. 3 f. *Advanced Practical Pomology* (1)—Senior year. Prerequisite, Hort. 1 and 101.

A trip occupying one week's time will be made through the principal fruit regions of eastern West Virginia, Maryland and Pennsylvania. A visit to the fruit markets of several large cities will be made. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

HORT. 4 s. *Small Fruit Culture* (2)—One lecture and one laboratory period. Not given 1927-1928.

The care and management of small fruit plantations. Varieties and their adaptation to Maryland soils and climate, packing, marketing and a study of the experimental plots and varieties on the Station grounds. The following fruits are discussed: the grape, strawberry, blackberry, blackcap raspberry, red raspberry, currant, gooseberry, dewberry and loganberry. Not given 1927-1928.

HORT. 5 f. *Fruits and Vegetable Judging* (2)—Two laboratory periods. Prerequisite, Hort. 1 and 11.

A course designed to train men for fruit-judging teams and practical judging. Students are required to know at least one hundred varieties of fruit, and are given practice in judging single plates, largest and best collections, boxes, barrels and commercial exhibits of fruits and vegetables. Students are required to help set up the college horticultural show each year. Not given 1927-1928.

HORT. 6 f. *Advanced Fruit Judging* (1)—One laboratory period. Prerequisite, Hort. 5.

B. Vegetable Crops

HORT. 11 s. *Principles of Vegetable Culture* (3)—Two lectures and one laboratory.

A study of fundamental principles underlying all garden practices. Each student is given a small garden to plan, plant, cultivate, spray, fertilize, harvest, etc.

HORT. 12 f. *Truck Crop Production* (3)—Two lectures and one laboratory period. Prerequisite, Hort. 11.

A study of methods used in commercial vegetable production. Each individual crop is discussed in detail. Trips are made to large commercial gardens, various markets and other places of interest.

HORT. 13 s. *Vegetable Forcing* (3)—Two lectures and one laboratory period. Prerequisite, Hort. 11.

All vegetables used for forcing are considered. Laboratory work in sterilization and preparation of soils, cultivation, regulation of temperature and humidity, watering, training, pruning, pollination, harvesting and packing.

C. Floriculture

HORT. 21 s. *General Floriculture* (2)—One lecture and one laboratory period.

The management of greenhouse; the production and marketing of florists' crops; retail methods; plants for house and garden. Not given 1927-1928.

HORT. 22 y. *Greenhouse Management* (6)—Two lectures and one laboratory period.

A consideration of the methods employed in the management of greenhouses, including the operations of potting, watering, ventilating, fumigation and methods of propagation. Not given 1927-1928.

HORT. 23 y. *Floricultural Practice* (4)—Two laboratory periods.

Practical experience in the various greenhouse operations of the fall, winter and spring seasons.

HORT. 24 s. *Greenhouse Construction* (2)—One lecture and one laboratory period.

The various types of houses, their location, arrangement, construction, and cost; principles and methods of heating; preparation of plans and specifications for commercial and private ranges.

HORT. 25 y. *Commercial Floriculture* (6)—Two lectures and one laboratory period. Prerequisite, Hort. 22.

Cultural methods of florists' bench crops and potted plants, the marketing of the cut flowers, the retail store, a study of floral decoration.

HORT. 26 f. *Garden Flowers* (3)—Two lectures and one laboratory period.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants and roses and their cultural requirements.

HORT. 27 s. *Floricultural Trip* (1)—Prerequisite, Hort. 22.

A trip occupying one week's time will be made through the principal floricultural sections, including Philadelphia and New York, visiting greenhouse establishments, wholesale markets, retail stores, nurseries, etc. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

D. Landscape Gardening

HORT. 31 s. *General Landscape Gardening* (2)—One lecture and one laboratory period.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject.

HORT. 32 f. *Elements of Landscape Design* (3)—One lecture and two laboratory periods. Prerequisite, Hort. 31.

A consideration of the principles of landscape design; surveys, mapping and field work. Not given 1927-1928.

HORT. 33 s. *Landscape Design* (3)—Three laboratory periods. Prerequisite, Hort. 32.

The design of private grounds, gardens and of architectural details used in landscape; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments. Not given 1927-1928.

HORT. 34 f. *Landscape Design* (3)—Three laboratory periods. Prerequisite, Hort. 33.

Continuation of course as outlined above.

HORT. 35 f. *History of Landscape Gardening* (1)—One lecture or laboratory period. Prerequisite, Hort. 31.

Evolution and development of landscape gardening; the different styles and a particular consideration of Italian, English and American gardens. Not given 1927-1928.

HORT. 36 s. *Landscape Construction and Maintenance* (1) — One credit. One lecture or laboratory period.

Methods of construction and planting; estimating; park and estate maintenance.

HORT. 37 s. *Civic Art* (2)—One lecture and one laboratory period.

Principles of city planning and their application to village and rural improvement, including problems in design of civic center, parks, school grounds and other public and semi-public areas.

E. General Horticultural Courses

HORT. 41 s. *Horticultural Breeding Practices* (1) — One laboratory period. Senior year. Prerequisites, Genetics (Agron. 101), Plant Phys. 1.

Practice in plant breeding, including pollination, hybridization, selection, note-taking and the general application of the theories of heredity and selection to practice are taken up in this course.

HORT. 42 y. *Horticultural Research and Thesis* (4-6).

Advanced students in any of the four divisions of horticulture may select some special problem for individual investigation. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, students should in most cases start the work during the junior year. The results of the research work are to be presented in the form of a thesis and filed in the horticultural library.

HORT. 43 y. *Horticultural Seminar* (2).

In this course papers are read by members of the class upon subjects pertaining to their research or thesis work or upon special problems assigned them. Discussions of special topics are given from time to time by members of the departmental staff.

For Advanced Undergraduates and Graduates

HORT. 101 f. *Commercial Fruit Growing* (3)—Two lectures and one laboratory period. Prerequisite, Hort. 1.

The proper management of commercial orchards in Maryland. Advanced work is taken up on the subject of orchard culture, orchard fertilization, picking, packing, marketing and storing of fruits, orchard by-products, orchard heating and orchard economics. (Assistant Professor Whitehouse.) Not given 1927-1928.

HORT. 102 s. *Economic Fruits of the World* (2)—Two lectures. Prerequisites, Hort. 1 and Hort. 101.

A study is made of the botanical, ecological and physiological characteristics of all species of fruit-bearing plants of economic importance, such as the date, pineapple, fig, olive, banana, nut-bearing trees, citrus fruits, newly-introduced fruits, and the like, with special reference to their cultural requirements in certain parts of the United States and the insular possessions. All fruits are discussed in this course which have not been discussed in a previous course. (Assistant Professor Whitehouse.)

HORT. 103 f. *Tuber and Root Crops* (2)—One lecture and one laboratory period. Prerequisites, Hort. 11 and 12.

A study of white potatoes and sweet potatoes, considering seed, varieties, propagation, soils, fertilizers, planting, cultivation, spraying, harvesting, storing and marketing. (Assistant Professor Boswell.)

HORT. 104 s. *Advanced Truck Crop Production* (2)—Prerequisites, Hort. 11, 12 and 13.

A trip of one week is made to the commercial trucking section of Maryland, Delaware, New Jersey and Pennsylvania. A study of the markets in several large cities is included in this trip. Students are required to hand in a detailed report of this trip. Such a trip should not exceed thirty dollars per student. The time will be arranged each year with each class. (Assistant Professor Boswell.)

HORT. 105 f. *Systematic Olericulture* (3)—Two lectures and one laboratory period. Prerequisites, Hort. 11 and 103. Given in odd years only.

A study of the classification and nomenclature of vegetables. Descriptions of varieties and adaptation of varieties to different environmental conditions. (Assistant Professor Boswell.)

HORT. 106 y. *Plant Materials* (5)—One lecture and one laboratory period. Given in even years only.

A field and laboratory study of trees, shrubs, and vines used in ornamental planting. (Associate Professor Thurston.)

For Graduates

HORT. 201 y. *Experimental Pomology* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practices in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Auchter.)

HORT. 202 y. *Experimental Olericulture* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practices in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been, or are being conducted in all experiment stations in this and other countries. (Boswell.)

HORT. 203 s. *Experimental Floriculture* (2)—Two lectures.

A systematic study of the sources of knowledge and opinions as to practice in floriculture are discussed in this course. The results of all

experimental work in floriculture which have been, or are being conducted, will be thoroughly discussed. (Thurston.)

HORT. 204 s. *Methods of Research* (2)—One lecture and one laboratory period.

For graduate students only. Special drill will be given in the making of briefs and outlines of research problems, in methods of procedure in conducting investigational work, and in the preparation of bulletins and reports. A study of the origin, development and growth of horticultural research is taken up. A study of the research problems being conducted by the Department of Horticulture will be made, and students will be required to take notes on some of the experimental work in the field and become familiar with the manner of filing and cataloging all experimental work. (Auchter.)

HORT. 205 y. *Advanced Horticultural Research and Thesis* (4, 6 or 8).

Graduate students will be required to select problems for original research in either pomology, vegetable gardening, floriculture or landscape gardening. These problems will be continued until completed and final results are to be published in the form of a thesis. (Auchter, Geise, Schrader, Boswell.)

HORT. 206 y. *Advanced Horticultural Seminar* (2).

This course will be required of all graduate students. Students will be required to give reports either on special topics assigned them, or on the progress of their work being done in courses. Members of the departmental staff will report special research work from time to time. (Auchter, Boswell.)

Requirements of Graduate Students in Horticulture

Pomology—Graduate students specializing in Pomology who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 1, 2, 101, 102, 201, 204, 205 and 206; General Bio-chemistry 102; Plant Bio-chemistry 201; Plant Bio-physics 202; Advanced Plant Physiology 101, and Organic Chemistry 8 y.

Olericulture—Graduate students specializing in vegetable gardening, who are planning to take an advanced degree, will be required either to take or offer the equivalent of the following courses: Hort. 13, 103, 105, 202, 204, 205 and 206; General Bio-chemistry 102; Plant Bio-chemistry 201; Plant Bio-physics 202; Advanced Plant Physiology 101, and Organic Chemistry 8 y.

Floriculture—Graduate students specializing in floriculture, who are planning to take an advanced degree, will be required either to take or offer the equivalent of the following courses: Hort. 22, 23, 24, 25, 26, 203, 204, 205 and 206; General Bio-chemistry 102; Plant Bio-physics 202; Plant Bio-chemistry 201; Botany 103, and Organic Chemistry 8 y.

Landscape Gardening—Graduate students specializing in landscape gardening, who are planning to take an advanced degree, will be required either to take or offer the equivalent of the following courses: Hort. 32, 33, 35, 105, 204 and 206; Botany 103; Drafting 1 and 2, and Plane Surveying 1 and 2.

Additional Requirements—In addition to the above required courses, all graduate students in horticulture are advised to take physical and colloidal chemistry.

Unless graduate students in Horticulture have had some course work in entomology, plant pathology, Genetics and Biometry, certain of these courses will be required.

LATIN

PROFESSOR SPENCE,

LAT. 1 f. *Elementary Latin* (4)—Four lectures or recitations.

This course is offered to cover a substantial and accurate course in Grammar and Syntax, with translation of simple prose. It is substantially the equivalent of one entrance unit in Latin.

LAT. 2 s. *Translation and Prose Composition* (4)—Four lectures or recitations. Prerequisite, Lat. 1 or its equivalent. Substantially the equivalent of a second entrance unit in Latin.

Texts will be selected from the works of Caesar and Sallust.

LAT. 3 f. (4)—Four lectures or recitations. Prerequisite, Lat. 2, or two entrance units in Latin.

Texts will be selected from Virgil with drill on prosody.

LAT. 4 s. (4)—Four lectures or recitations. Prerequisite, Lat. 3 or three entrance units in Latin.

Selections from Cicero's orations, with parallel reading of the world's masterpieces of oratory.

LAT. 5 f. (3)—Three lectures or recitations. Prerequisites, Lat. 3 and 4.

Histories of Livy, with parallel reading of Napoleon's campaign in Italy.

LAT. 6 s. (3)—Three lectures or recitations. Prerequisites, Lat. 3 and 4.

Odes and Epodes of Horace, with appropriate study of prosody.

For Advanced Undergraduates and Graduates

LAT. 101 f. (3)—Three lectures or recitations. Prerequisites, Lat. 3 and 4.

The writings of Tacitus. Selected Plays of Terence and Plautus. (May be omitted 1927-1928.) (Spence.)

LAT. 102 s. (3)—Three lectures or recitations. Prerequisites, Lat. 3 and 4.

Satires of Juvenal and Horace. (May be omitted 1927-1928.) (Spence.)

LAT. 103 s. *Classical Literature* (3)—Three lectures or recitations. Knowledge of Greek or Latin desirable, but not essential.

Study and criticism of translations of the classics, biographies of classic authors. (Spence.)

LIBRARY SCIENCE

MISS GRACE BARNES, MISS HELEN BARNES.

L. S. 1 f. *Library Methods* (1) — Freshman year. Required of all students registered in the College of Arts and Sciences. Elective for others.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various catalogs, indexes and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much-used reference books which the student will find helpful throughout his college course.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, GWINNER; ASSISTANT PROFESSORS SPANN, SCHAD; DR. DANTZIG, MR. PYLE.

MATH. 1 f. *Algebra* (3)—Three lectures or recitations. Required of Pre-medical students. Alternative for students in the College of Arts and Sciences. Elective for other students. Prerequisite, Algebra to Quadratics.

This course includes the study of quadratics, simultaneous quadratic equations, graphs, progression, elementary theory of equations, binomial theorem, permutations, combinations, etc.

MATH. 2 s. *Plane Trigonometry* (3)—Three lectures or recitations. Required of Pre-medical students. Alternative for students in the College of Arts and Sciences. Elective for other students. Prerequisites, Math. 1 f and Plane Geometry.

A study of the trigonometric functions and the deduction of formulas with their application to the solution of triangles and trigonometric equations.

MATH. 3 f. *Trigonometry; Advanced Algebra* (5)—Five lectures or recitations. Required of Freshmen in the College of Engineering and in Chemistry. Elective for other students. Prerequisites, Algebra completed and Solid Geometry.

Advanced Algebra includes a rapid review of algebra required for entrance, elementary theory of equations, binomial theorem, permutations, combinations and other selected topics.

Trigonometry includes trigonometric functions, the deduction of formulas and their application to the solution of plane triangles, trigonometric equations, spherical triangles, etc.

This course will be repeated during the second semester.

MATH. 4 s. *Analytic Geometry* (5)—Five lectures or recitations. Required of students in the College of Engineering and in Chemistry. Elective for other students. Prerequisite, Math. 3 f.

This course includes a study of curve and equation, the straight line, the conic sections, empirical equations, transcendental curves. The plane and the straight line in space, and the Quadric surfaces. An opportunity is afforded to take this course during the summer.

MATH. 5 f. *Plane Analytic Geometry* (3)—Three lectures or recitations. Required of students in chemistry. Elective for other students. Prerequisites, Math. 1 f and 2 s.

Plane analytic geometry includes the study of the loci of equations in two variables, the straight line, conic sections and transcendental curves, and the development of empirical equations from graphs.

MATH. 6 s. *Calculus* (3)—Three lectures or recitations. Required of students in chemistry. Elective for other students. Prerequisite, Math. 5 f.

Calculus includes the study of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, lengths of curves, etc., in the plane.

MATH. 7 y. *Calculus; Elementary Differential Equations* (10)—Three lectures or recitations each semester. Required of Sophomores in the College of Engineering. Elective for other students. Prerequisite, Math. 4 s.

Calculus is studied throughout the year. In the second semester several weeks are devoted to the study of elementary differential equations.

Calculus includes a discussion of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane, and the determination of areas, volume, etc., in space.

For Advanced Undergraduates and Graduates

MATH. 101 f. *The Mathematical Theory of Investment* (3)—Three lectures or recitations. To be followed by Math. 102 s. Open to Juniors and Seniors.

The application of mathematics to financial transactions; compound interest and discount, construction and use of interest tables, sinking funds, annuities, depreciation, valuation and amortization of securities, building and loan associations, life insurance, etc. (Schad.)

MATH. 102 s. *Elements of Statistics* (3)—Three lectures or recitations. A continuation of Math. 101. Prerequisite, Math. 101. Open to Juniors or Seniors.

A study of the fundamental principles used in statistical investigation. (Schad.)

MATH. 103 f. *Differential Equations* (3)—Three lectures. Elective. Prerequisites, Math. 6 s or Math. 7 y.

Integration of ordinary differential equations. Total differential equations and partial differential equations are also considered. (Taliaferro.)

MATH. 104 s. *Differential Geometry* (3) — Three lectures. Elective. Prerequisites, Math. 6 s or 7 y.

Applications of the calculus to plane and skew curves. Theory of Surfaces. (Taliaferro.)

MATH. 105 f. *Advanced Algebra* (3)—Three lectures. Elective. Matrices and determinants. Invariants. Linear Substitutions. Finite Groups, Quadratic Forms, Theory of Equations. (Taliaferro.)

MATH. 106 s. *Advanced Topics in Gemoetry* (3) — Three lectures. Elective.

Homogeneous Co-ordinates. Principles of Projective Geometry. Theory of Algebraic Curves. Infinite Groups. (Taliaferro.)

MATH. 107 f. *Functions of a Complex Variable* (3)—Three lectures. Elective.

Theory of Functions. Conformal Transformations. Development into Series. Applications to Integral Calculus. (Taliaferro.)

MATH. 108 s. *Vector Analysis* (3)—Three lectures. Theory of Vectors. Tensors and Linear Vector Functions. Vector Fields. (Taliaferro.)

Not more than two of the Courses, 105 to 108, inclusive, will be given in any year.

MATH. 109 f. or s. *Least Squares* (2)—Two lectures. Elective. Prerequisites, Math. 6 s. or 7 y.

A short course in which stress is laid on the application to Engineering, Chemistry, etc.

MILITARY SCIENCE AND TACTICS

PROFESSOR LYTLE; ASSISTANT PROFESSORS SCOBAY, BOWES, MCMANUS; MR. HENDRICKS.

M. I. 1 y. *Basic R. O. T. C.* (2)—Freshman year. The following subjects are covered:

First Semester:

Military Courtesy, Command and Leadership, Physical Drill, Military Hygiene and First Aid.

Second Semester:

Physical Drill, Military Hygiene and First Aid, Command and Leadership, Marksmanship.

M. I. 2 y. *Basic R. O. T. C.* (4)—Sophomore year. The following subjects are covered:

First Semester:

Musketry, Command and Leadership, Scouting and Patrolling.

Second Semester:

Interior Guard Duty, Automatic Rifle, Command and Leadership.

M. I. 101 y. *Advanced R. O. T. C.* (6)—Junior year. The following subjects are covered:

First Semester:

Infantry Weapons (Machine Guns), Command and Leadership.

Second Semester:

Infantry Weapons (Machine Guns), Military Sketching and Map Reading, Military Field Engineering, Command and Leadership, Combat Principles.

M. I. 102 y. *Advanced R. O. T. C.* (6)—Senior year.

The following subjects are covered:

First Semester:

Combat Principles, Command and Leadership.

Second Semester:

Combat Principles, Infantry Weapons (37 MM. Gun and 3-inch Trench Mortar), Administration, Command and Leadership, Military Law, Rules of Land Warfare, Military History and National Defense Act.

MODERN LANGUAGES

PROFESSOR ZUCKER; ASSOCIATE PROFESSORS KRAMER, SILIN;

MISS STANLEY, MR. PARSONS.

A. Comparative Literature

For Advanced Undergraduates and Graduates

The courses in Comparative Literature are, for the time being, under the direction of the Department of Modern Languages. They may be elected as partially satisfying major and minor requirements in this department. Comparative Literature 101, 104 and 105 may also be counted toward a major or minor in English.

COMP. LIT. 101 y. *Introduction to Comparative Literature* (6)—Lectures, recitations and reports.

Survey of the background of European literature through a study in English translation of Greek, Latin, Biblical and medieval literature. Special emphasis on the development of the epic, tragedy, comedy and other typical forms of literary expression. The debt of modern literature to the Ancients is discussed and illustrated. (Zucker.)

COMP. LIT. 103 y. *Molière and the Development of Comedy* (6).

Brief survey of the origin and history of comedy before Molière. Study of Molière's complete works, followed by the tracing of his influence on later writers. Knowledge of French required. (Zucker.) Not given 1927-1928.

COMP. LIT. 104 y. *Ibsen and His Influence on the Modern Drama* (4).

Rapid survey of European drama in the middle of the nineteenth century. Study of Ibsen's complete works in Archer's translation, followed by the reading of modern social and symbolical plays that show Ibsen's influence. (Zucker.)

COMP. LIT. 105 y. *Romanticism in France, Germany and England* (6). Lectures, recitations and reports.

Introduction to the chief authors of the Romantic movement in England, France and Germany, the latter two groups being read in English translation. Lectures on the chief thought currents and literary movements of the late eighteenth and early nineteenth centuries. First semester: Rousseau to Gautier; Buerger to Heine. Second semester: Wordsworth, Coleridge, Landor, Byron, Shelley, Keats and others. The course is conducted by members of both the Modern Language and the English Departments. (Silin, Zucker, Hale.)

B. French

FRENCH 1 y. *Elementary French* (8)—Four recitations. No credit given unless both semesters are completed. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Drill upon pronunciation, elements of grammar; composition, conversation, easy translation.

FRENCH 2 y. *Second-Year French* (6)—Three recitations. Prerequisite, French 1 or equivalent.

Study of grammar continued; composition, conversation, translation. Texts selected from modern prose.

FRENCH 11 y. *The Development of the French Novel* (6)—Three recitations, lectures and reports.

Introductory study of the history and growth of the novel in French literature; of the lives, work and influence of various novelists.

This course alternates with French 12 y. Not given 1927-1928.

FRENCH 12 y. *The Development of the French Drama* (6)—Three recitations, lectures and reports.

Introductory study of the French drama of the seventeenth, eighteenth and nineteenth centuries. Translation and collateral reading.

This course alternates with French 11 y.

For Advanced Undergraduates and Graduates

(French 11 y or 12 y or equivalent prerequisite for courses in this group)

FRENCH 101 y. *History of French Literature in the Seventeenth and Eighteenth Centuries* (6)—Three lectures and recitations. (Silin.) Not given 1927-1928.

FRENCH 103 y. *History of French Literature in the Nineteenth Century* (6)—Three lectures and recitations. (Silin.)

FRENCH 104 y. *Contemporary French Literature* (6)—Three lectures and recitations. (Silin.)

FRENCH 106 f. *French Phonetics and Pronunciation* (2)—Two lectures and recitations. (Silin.)

FRENCH 107 s. *French Conversation and Composition* (2)—Two recitations. (Silin.)

For Graduates

FRENCH 201 y. *The Renaissance in France* (6)—Three lectures and recitations. (Silin.) Not given 1927-1928.

FRENCH 202 y. *French Philology* (6)—Three lectures and recitations. (Silin.)

FRENCH 206 y. *Research and Thesis*—Credits determined by work accomplished. (Silin.)

NOTE—Courses 101, 103, 104 and 201 are conducted entirely in French; a practical command of the language is required.

Attention is also called to Comparative Literature 105, *Romanticism in France, Germany and England*.

C. German

GERMAN 1 y. *Elementary German* (8)—Four recitations. No credit given unless both semesters are completed. Students who offer two units in German for entrance, but whose preparation is not adequate for secondary German, receive half credit for this course.

The elements of German grammar, reading of easy prose, oral practice.

GERMAN 2 y. *Second-Year German* (6)—Three recitations. Prerequisite, German 1 or equivalent.

Reading of narrative and technical prose, grammar review, oral and written practice.

GERMAN 3 y. *Advanced German* (6)—Three recitations. Prerequisite, German 2 or equivalent.

Rapid reading of modern dramas and novels by Hauptmann, Sudermann, Fulda, Frenssen, Ernst and others.

For Advanced Undergraduates and Graduates

(Prerequisite for courses in this group, German 3 y or equivalent)

GERMAN 101 y. *German Literature of the Eighteenth Century* (6)—Three lectures and recitations. (Zucker.) Not given 1927-1928.

GERMAN 102 y. *German Literature of the Nineteenth Century* (6)—Three lectures and recitations. (Zucker.)

Attention is also called to Comparative Literature 105, *Romanticism in France, Germany and England*.

D. Spanish

SPANISH 1 y. *Elementary Spanish* (8)—Four recitations. No credit given unless both semesters are completed. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of Spanish grammar; reading of easy prose; oral practice.

SPANISH 2 y. *Second-Year Spanish* (6)—Three recitations. Prerequisite, Spanish 101 or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

SPANISH 11 y. *Advanced Spanish* (6)—Three recitations. Prerequisite, Spanish 2 or equivalent.

First Semester—Readings from classical drama. Reading, lectures and discussions. Second Semester—Lectures on the origin of the novel. Readings in novel of Golden Age.

SPANISH 12 y. *Readings in the Spanish Novel* (6)—Three recitations. Prerequisite, Spanish 2 or equivalent.

First Semester—Readings in Spanish novel of 19th and 20th centuries. Second Semester—Don Quixote. Lectures on related subjects in Spanish Literature. Not given 1927-1928.

SPANISH 101 y. *Spanish Conversation and Composition* (4) — Two recitations.

MUSIC

PROFESSOR HOUSE, MR. GOODYEAR.

MUSIC 1 y. *Music Appreciation* (2).

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra, the instruments that it employs. The development of the symphony and orchestra instruments for solo performance. The development of the opera and oratorio. Great singers of the past and present. (Goodyear.)

MUSIC 2 y. *University Chorus* (2).

Study of part-songs, cantatas, and oratorios. Credit is awarded for regular attendance at weekly rehearsals, and participation in public performances of the chorus.

Students admitted who have ability to read and sing music of the grade of easy church hymns. No student may receive more than four credits for work in University Chorus. (House.)

MUSIC 3-6 y. *University Orchestra* (1 credit for each semester satisfactorily completed).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Hayden and Mozart to Wagner and the modern composers are used. Students are eligible for membership who play orchestral instruments. At least one rehearsal of two hours duration is held each week, and all players are expected to take part in public performances. (Goodyear.)

(For courses in Voice and Piano, see under College of Arts and sciences.)

PHILOSOPHY

PROFESSOR SPENCE

For Advanced Undergraduates and Graduates

PHIL. 101 f. *Introduction to Philosophy* (3)—Lectures and assignments.

A study of the meaning and scope of philosophy; its relations to the arts, sciences and religion. To be followed by Phil. 102.

PHIL. 102 s. *Problems and Systems of Philosophy* (3)—Three lectures and reports on the reading of representative works. Prerequisite, Phil. 101.

Study of the problems and systems of philosophy, together with tendencies of present-day thought.

PHIL. 104 y. *History of Philosophy* (6)—Three lectures each semester. Senior standing required.

A study of the development of philosophy from prehistoric times, through Greek philosophy, early Christian philosophy, medieval philosophy to modern philosophical thought. (May be omitted 1927-1928.)

MYTH. 101 s. *Mythology* (1)—One lecture a week.

Origin and reason of folklore and myth. Comparison of myths, mythology, and modern thought.

PHYSICAL EDUCATION FOR WOMEN

MISS STAMP

PHYS. ED. 1 y. *Physical Education and Personal Hygiene* (2) — Freshman course required of all women.

This course consists of instruction in hygiene, one period a week, and physical training activities, two periods a week throughout the year.

A. *Personal Hygiene*. The health ideal and its attainment; care of the body relative to diet, exercise, sleep, bathing, etc., and social hygiene.

B. *Physical Activities*. The aim is to adapt the physical activities to the needs of groups and individuals. Gymnastic practice, indoor and outdoor games, sports and athletics are provided. The repertory of games and sports is as follows: basketball, hiking, rifle shooting, swimming, tennis and track and field events.

PHYS. ED. 2 y. *Physical Education and General Hygiene* (4)—Sophomore course required of all women.

This course is a continuation of the freshman course. The work in hygiene includes the elements of physiology; the elements of home, school, community hygiene; and a continuation of social hygiene. The program of physical activities is essentially the same as in the first year.

PHYSICS

PROFESSOR EICHLIN, MR. (———)

PHYS. 1 y. *Arts Physics* (8)—Three lectures (or recitations) and one laboratory period each semester. Prerequisites, Math. 1 f and 2 s.

A study of the physical phenomena in Mechanics, Heat, Sound, Magnetism, Electricity and Light. Required of students in the Pre-Medical curriculum. Elective for other students.

PHYS. 2 y. *Engineering Physics* (10)—Four lectures (or recitations) and one laboratory period each semester. Prerequisite, Math. 3 y.

A study of Mechanics, Heat, Sound, Magnetism, Electricity and Light. Required of all students in engineering and chemistry. Elective for other students.

PHYS. 3 s. *Special Applications of Physics* (4)—Three lectures (or recitations) and one laboratory period.

This course consists of a discussion of the laws and theories of physics from the viewpoint of their practical applications. Especially for students in agriculture and home economics.

For Advanced Undergraduates and Graduates

PHYS. 101 f. *Physical Measurements* (3)—Two lectures (or recitations) and one laboratory period. Prerequisite, Phys. 1 or 2.

This course is designed for the study of the theory of physical measurements and for familiarizing the student with the manipulation of the types of apparatus used in experimentation in physical problems. (—.)

PHYS. 102 y. *Graphic Physics* (2)—One laboratory period each semester. Prerequisite, Phys. 2.

A study of physical laws and formulae by means of scales, charts and graphs.

PHYS. 103 f. *Advanced Physics* (3 or 4)—Three lectures (or recitations) and one laboratory period. Prerequisite, Phys. 1 or 2.

An advanced study of Mechanics and Molecular Physics. (Not given 1927-1928.)

PHYS. 104 s. *Advanced Physics* (3 or 4)—Three lectures (or recitations) and one laboratory period. Prerequisite, Phys. 1 or 2.

An advanced study of Wave Motion, Sound and Heat. (Not given 1927-1928.)

PHYS. 105 f. *Advanced Physics* (3 or 4)—Three lectures (or recitations) and one laboratory period. Prerequisite, Phys. 1 or 2.

An advanced study of Electricity and Magnetism. (Eichlin.)

PHYS. 106 s. *Advanced Physics* (3 or 4)—Three lectures (or recitations) and one laboratory period. Prerequisite, Phys. 1 or 2.

An advanced study of Optics. (Eichlin.)

PHYS. 107 y. *Specialized Physics* (6)—Three lectures (or recitations) each semester. Prerequisite, Phys. 1 or 2.

A study of Physical phenomena in Optics, Spectroscopy, Conduction of Electricity through Gases, etc. (Eichlin.)

For Graduates

PHYS. 201 y. *Modern Physics* (6)—Three lectures (or recitations) each semester. A study of some of the problems encountered in Modern Physics. (Eichlin.)

PLANT PATHOLOGY

PROFESSORS NORTON, TEMPLE; DR. JEHL, MR. HUNTER,

MR. MOYER, MR. SPIEGELBERG.*

(For other Botanical Courses see Botany and Plant Physiology)

PLT. PATH. 1 f. *Diseases of Plants* (3)—Two lectures and one laboratory period. Prerequisite, Gen. Bot. 1.

An introductory study in the field, in the laboratory and in the literature, of symptoms, casual organisms and control measures of the diseases of economic crops.

PLT. PATH. 2 s. *Forest Pathology* (1)—One lecture and an occasional field trip or laboratory period. Not given 1927-1928.

* All on part time teaching.

The diseases of forest trees of economic importance. Intended especially for students in forestry.

For Advanced Undergraduates and Graduates

PLT. PATH. 101 f. *Diseases of Fruits* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1.

An intensive study intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in fruit production, as well as those who expect to become specialists in plant pathology.

PLT. PATH. 102 s. *Diseases of Garden and Field Crops* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1.

The diseases of garden crops, truck crops, cereal and forage crops. Intended for students of vegetable culture, agronomy and plant pathology, and for those preparing for county agent work.

PLT. PATH. 103 f. *Research Methods* (2)—One conference and five hours of laboratory and library work. Prerequisite, Plt. Path. 1 or equivalent.

Technique of plant disease investigations: sterilization, culture media, isolation of pathogens, inoculation methods, single-spore methods, disinfectants, fungicides, photography, preparation of manuscripts, and the literature in the scientific journals and bulletins on these subjects. (Temple.)

PLT. PATH. 104 f and s. *Minor Investigations* — Credit according to work done. A laboratory course with an occasional conference. Prerequisite, Plt. Path. 101 or a course in bacteriology.

In this course the student may enter or withdraw at any time, including the summer months, and receive credit for the work accomplished. The course is intended primarily to give practice in technique so that the student may acquire sufficient skill to undertake fundamental research. Only minor problems or special phases of major problems may be undertaken. Their solution may include a survey of the literature on the problem under investigation and both laboratory and field work. (Temple and Norton.)

PLT. PATH. 105 s. *Diseases of Ornamentals* (2)—One lecture and one laboratory period. Offered in 1928-1929.

The most important diseases of plants growing in greenhouse, flower garden and landscape, including shrubs and shade trees. (Temple.)

PLT. PATH. 106 y. *Seminar* (1).

Conferences and reports on plant pathological literature and on recent investigations. (Temple.)

PLT. PATH. 107 f. *Plant Disease Control* (3)—Two lectures and one laboratory period. Prerequisite, Plt. Path. 1.

An advanced course dealing with the theory and practice of plant disease control; the preparation of sprays and other fungicides and the testing of their toxicity in greenhouse and laboratory; demonstration

and other extension methods adapted to county agent work and to the teaching of agriculture in high schools. (Jehle, Temple, Hunter.)

PLT. PATH. 108 f. *Plant Disease Identification*—Credit according to work accomplished. A laboratory and field study with conferences.

An extensive study of symptomatology and mycology leading to the identification of pathogens and the diseases caused by them. (Norton, Temple.)

PLT. PATH. 109 f or s. *Pathogenic Fungi* (2-5)—One lecture and one or more laboratory periods, according to credit. Prerequisites, Bot. 1 and Bact. 1.

A detailed treatment of the classification, morphology and economics of the fungi, with studies of life histories in culture; identification of field materials. (Norton.)

For Graduates

PLT. PATH. 201 f. *Virus Diseases*—Two credits. Two lectures.

An advanced course dealing with the mosaic and similar or related diseases of plants, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Temple.)

PLT. PATH. 202 s. *Physiology of Parasitism* (2)—One lecture and one laboratory period. Prerequisite, Plt. Path. 103 or equivalent. Not given 1927-1928.

A study of the physiological inter-relations of plant pathogens and their hosts.

PLT. PATH. 203 f. *Non-Parasitic Diseases* (2)—Two lectures.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizers; improper treatment and other detrimental conditions. (Norton.)

PLT. Path. 204 s. *Literature of Plant Pathology* (2) — One conference and five hours of library work.

History and development of the science; scope and importance of the more outstanding botanical and plant pathological publications, including journals, bulletins, etc.; card catalogue of the workers, past and present day, and of their contributions; laboratories for research and for instruction. (Temple.)

PLT. PATH. 205 y. *Research*—Credits according to work done. (Norton, Temple.)

PLANT PHYSIOLOGY AND BIOCHEMISTRY

PROFESSORS APPLEMAN, ZIMMERMAN; ASSOCIATE PROFESSOR JOHNSTON;

ASSISTANT PROFESSOR CONRAD; MR. SMITH.

(For other Botanical courses see Botany and Plant Pathology)

PLT. PHY. 1 f. *Plant Physiology* (4)—Two lectures and two laboratory periods. Prerequisite, Gen. Bot. 1.

Water requirements, principles of absorption, mineral nutrients, transpiration, synthesis of food, metabolism, growth and movements.

PLT. PHY. 2 s. *Plant Ecology* (3)—One lecture and two laboratory periods. Prerequisite, Bot. 1.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much of the work, especially the practical, must be carried on in the field and for this purpose type regions adjacent to the University are selected.

For Advanced Undergraduates and Graduates

PLT. PHY. 101 y. *Advanced Plant Physiology* (4)—Two lectures. Prerequisite, Plt. Phy. 1.

A study of the physiology of growth. The course deals with special groups of factors which have to do with temporary responses and long period responses effecting complete development, movements and reproduction. (Zimmerman.)

BIOCHEM. 102 f. *General Biochemistry* (4)—Two lectures and two laboratory periods. Prerequisites, Gen'l Chem. 1, Analyt. Chem. 3 or their equivalents; also an elementary knowledge of organic chemistry.

A general course in chemical biology treated from the point of view of both plants and animals. The first half of the course is devoted to the chemistry of protoplasm and its products. The second half of the course deals with cell metabolism and embraces processes and problems of fundamental importance in both animal and plant life. (Appleman, Conrad.)

For Graduates

PLT. PHYS. 201 s. *Plant Biochemistry* (3) — Two lectures and one laboratory period. Prerequisites, Biochem. 102 and an elementary knowledge of plant physiology.

An advanced course on the chemistry of plant life. It follows Biochem. 102 and deals with materials and processes characteristic of plant life. Primary syntheses and the transformations of materials in plants and plant organs are especially emphasized. (Appleman, Conrad.)

PLT. PHYS. 202 s. *Plant Biophysics* (3)—Two lectures and one laboratory period. Prerequisites, one year's work in physics and an elementary knowledge of physical chemistry and plant physiology.

An advanced study of the operation of physical forces in plant physiological processes. The relation of climatic conditions to plant growth and practice in recording meteorological data constitute a part of the course. (Johnston.)

PLT. PHYS. 203 s. *Special Problems of Growth and Development* (2)—Not given every year. (Appleman, Zimmerman, Johnston.)

PLT. PHYS. 204 y. *Seminar* (2).

The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject.

PLT. PHYS. 205 y. *Research*—Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Zimmerman, Johnston.)

POULTRY HUSBANDRY

PROFESSOR WAITE, ASSISTANT PROFESSOR QUIGLEY.

POULTRY 1 s and 101 s. *Farm Poultry* (3)—Two lectures and one laboratory period.

A general course in poultry raising, including housing, feeding, incubation, brooding, breeds, breeding, selection of stock, culling, general management and marketing.

POULTRY 102 f. *Poultry Keeping* (4)—Two lectures and two laboratory periods. Prerequisite, Poultry 101.

A study of housing and yarding, practice in making poultry house plans, feeding, killing and dressing.

POULTRY 103 s. *Poultry Production* (4)—Two lectures and two laboratory periods. Prerequisite, Poultry 101 and 102.

The theory and practice of incubation and brooding, both natural and artificial. Study of incubators and brooders, assembling, etc. Considerable stress will be placed on the proper growing of chicks into good laying pullets. General consideration of poultry disease. Caponizing.

POULTRY 104 f. *Poultry Breeds* (4)—Two lectures and two laboratory periods. Prerequisite, Poultry 101, 102 and 103.

A study of the breeds of poultry, the judging of poultry, fitting for exhibition and the methods of improvement by breeding.

POULTRY 105 s. *Poultry Management* (4)—Two lectures and two laboratory periods. Prerequisites, Poultry 101, 102, 103 and 104.

A general fitting together and assembling of knowledge gained in the previous courses. Culling, marketing, including both selling of poultry products and the buying of supplies, keeping poultry accounts, a study of poultry profits, how to start.

PSYCHOLOGY

MR. BROWNING.

PSYCH. 1 f or s. *Elements of Psychology* (3)—Two lectures and one conference. Seniors in this course receive but two credits.

The concept of consciousness as dependent upon the reactions of the individual is applied to the problems of human behavior. In this course the fundamental facts and principles of mental life are presented as a basis, not only for better understanding the behavior of others, but also for the intelligent use of individual capacities and the formation of desirable personality and character traits. This course is given in both the first and second semesters.

For Advanced Undergraduates and Graduates

PSYCH. 101 s. *Social Psychology* (3) — Prerequisite, Psych. 1 or equivalent.

The social aspects of the individual; personality; social attitudes and adjustments; social control; fashion, convention, custom, public opinion, etc., are considered as individual responses to social stimulation. (Browning.) Given in 1928-1929.

PSYCH. 102 s. *Applied Psychology* (3) — Prerequisite, Psych. 1 or equivalent.

This course is designed to introduce the student to the applications of Psychology in business and industry. Special emphasis is given to the methods of selection and placement of employees and their individual adjustment. (Browning.) Given in 1927-1928.

See "Education" for description of the following courses:

ED. 101 f. *Educational Psychology* (3).

ED. 106 s. *Advanced Educational Psychology* (3).

ED. 107 f. *Educational Measurements* (3).

ED. 108 s. *Mental Hygiene* (3).

PUBLIC SPEAKING

PROFESSOR RICHARDSON; MR. WATKINS.

P. S. 1 y. *Reading and Speaking* (2)—One lecture or recitation.

The principles and technique of oral expression; enunciation, emphasis, inflection, force, gesture and general delivery of short speeches. Impromptu speaking. Theory and practice of parliamentary procedure.

P. S. 2 f. *Advanced Public Speaking* (2)—Two lectures or recitations.

Advanced work on basis of P. S. 1, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social and political organizations, etc., and organizations in the field of the prospective vocation of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

P. S. 3 y. *Oral Technical English* (2)—One lecture or recitation.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. Argumentation. This course is especially adapted to the needs of engineering students and is co-ordinated with the seminars of the College of Engineering.

P. S. 4 y. *Advanced Oral Technical English* (2)—One lecture or recitation each semester.

This course is a continuation with advanced work of P. S. 3 y. Much attention is given to Parliamentary Procedure. Some of the class programs are prepared by the students and carried out under student supervision. For junior engineering students only.

P. S. 5 y. *Advanced Oral Technical English* (2)—One lecture or recitation.

Advanced work on the basis of P. S. 4 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. For senior engineering students only.

P. S. 7 f. *Extempore Speaking* (1)—One lecture or recitation.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected sub-

jects. Newspaper and magazine reading essential.

P. S. 8 s. *Extempore Speaking* (1)—One lecture or recitation.

Continuation of P. S. 7 f.

P. S. 9 f. *Debate* (2)—Two lectures or recitations.

A study of the principles of argumentation. A study of masterpieces in argumentative oratory. Class work in debating. It is advised that those who aspire to intercollegiate debating should take this course.

P. S. 10 s. *Argumentation* (2)—Two lectures or recitations.

Theory and practice of argumentation and debate. Similar to course P. S. 9 f. This course is offered for the benefit of those who may find it impracticable to take this work in the first semester.

P. S. 11 f. *Oral Reading* (2)—Two lectures or recitations.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

P. S. 12 s. *Oral Reading* (2)—Two lectures or recitations.

Continuation of P. S. 11.

SOILS

PROFESSORS MCCALL, BRUCE; ASSISTANT PROFESSOR MCKIBBIN.

SOILS 1 s. *Principles of Soil Management* (3)—Two lectures, one quiz and one laboratory period. Prerequisite, Geol. 101.

A study of the physical, chemical and biological principles underlying the formation and management of soils. The relation of mechanical composition, classification, moisture, temperature, air, organic matter and tillage are considered. The use and value of commercial plant nutrients, green and stable manure and of lime are discussed.

SOILS 2 f. *Fertilizers and Manures* (3)—Two lectures and one laboratory period. Prerequisite, Soils 101.

This course includes a study of the nature, properties and use of fertilizers; the source and composition of fertilizer materials and the principles underlying the mixing of commercial plant-food. A study is made of the production, value and uses of animal and vegetable manures. The practical work includes special studies of the effect of fertilizers and manures on the crop-producing power of the various soil types.

SOILS 3 s. *Soil Fertility* (3)—Two lectures and one laboratory period. Prerequisites, Soils 101 and 102. Not given 1927-1928.

A study of the soil fertility systems of the United States, with special emphasis on the inter-relation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems and the economic and national aspect of permanent soil improvement. The practical work includes a resume of the important fertility studies and laboratory and greenhouse practice in soil improvement.

SOILS 5 f. *Soil Surveying and Classification* (3)—One lecture and two laboratory periods. Prerequisite, Soils 101.

A study of the principal soil regions, series and types of the United States, and especially of the soils of Maryland, as to formation, composition and value agriculturally. The practical work includes a field survey, identification of soil types and map-making.

SOILS 7 y.—Thesis (4-8).

Some special problem is assigned to each student, who is expected to embody the results of the investigation in a thesis.

For Advanced Undergraduates and Graduate Students

SOILS 102 s. *Methods of Soil Investigation* (2)—Two lectures. Prerequisites, Soils 1 s, Soils 3 s and Soils 5 f.

The course includes a critical study of the methods used by Experiment Stations in soil investigational work. (McKibbin.)

For Graduate Students

SOILS 201 y. *Special Problems and Research* (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

SOILS 202 y. *Soil Technology* (7-4 f, 3 s)—Two lectures and two laboratory periods first semester, two lectures and one laboratory period second semester. Prerequisites, Geology 101, Soils 101, and Chemistry 101. Not given in 1927-1928.

In the first semester chemical and physico-chemical study of soil problems as encountered in field, greenhouse and laboratory. In the second semester physical and plant nutritional problems related to the soil. (McKibbin.)

SOILS 203 y. *Seminar* (2).

Devoted to the discussion of current bulletins and scientific papers on soil topics. (Staff.)

SOILS 104 s. *Soil Micro-Biology* (2) — Two lectures. Prerequisite, Bact. 101.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, sulphur oxidation and reduction, and deals also with such organisms as fungi, algae and protozoa.

The course includes a critical study of the methods used by Experiment Stations in soil investigational work. (McKibbin.)

ZOOLOGY AND AQUICULTURE

PROFESSORS PIERSON, TRUITT; ASSISTANT PROFESSOR MCCONNELL;

MR. BURHOE.

ZOOL. 1 f or s. *General Zoology* (4)—Two lectures and two laboratory periods.

This course is cultural and practical in its aims. It deals with the basic principles of animal development, morphology, relationships and activities which are valuable for a proper appreciation of the biological and the social sciences.

ZOOL. 2 f. *General Zoology for Pre-Medical Students* (4)—Two lectures and two laboratory periods.

ZOOL. 3 s. *General Zoology for Pre-Medical Students* (4)—Two lectures and two laboratory periods. Prerequisites, Zool. 1 or Zool. 2.

ZOOL. 4 s. *Economic Zoology* (2)—Two lectures. Prerequisite, one course in Zoology or Botany 1.

The content of this course will center around the problems of preservation, conservation, control, and development of the economic wild life of Maryland, especially the blue crab and oyster. The lectures will be supplemented by assigned readings and reports.

ZOOL. 5 f. *The Invertebrates* (3)—One lecture and two laboratory periods. Prerequisite, Zool. 1.

This course consists in a study of the morphology and relationships of the principal invertebrate phyla.

ZOOL. 6 s. *Field Zoology* (3)—One lecture and two laboratory periods.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields and streams, with special emphasis placed upon insects and certain vertebrates, their breeding habits, environment and economic importance.

ZOOL. 8 f. *Comparative Vertebrate Morphology* (4) — Two lectures and two laboratory periods. Prerequisites, Zool. 1, or Zool. 6. Required of pre-medical students.

ZOOL. 12 s. *Normal Animal Histology* (3)—One lecture and two laboratory periods. Prerequisite, Zool. 1 or equivalent.

Instruction in the simplest processes of technique will accompany the study of prepared material.

ZOOL. 16 f or s. *Advanced Comparative Vertebrate Morphology* (2)—Schedule to be arranged. Prerequisite, Zool. 8 or its equivalent.

This is a continuation of Zool. 8, but will consist of laboratory work only.

For Advanced Undergraduates and Graduates

ZOOL. 101 s. *Embryology* (4) — Two lectures and two laboratory periods. Prerequisites, two semesters of biology, one of which should be Zool. 1 or 2. Required of three-year pre-medical students.

This course covers the development of the chick to the end of the fourth day. (Pierson, Anderson, Burhoe.)

ZOOL. 102 f or s. *Mammalian Anatomy* (1-3)—A laboratory course. Prerequisite, one year of Zoology. A thorough study of the gross anatomy of the cat or other mammal. Open to a limited number of students. The permission of the instructor in charge should be obtained before registering for this course. Schedule to be arranged. (Pierson.)

ZOOL. 105 y. *Aquiculture* (2) — Lectures and laboratory to be arranged. Prerequisites, Zool. 1 and Bot. 1.

Plankton studies and the determination of other aquatic life of nearby streams and ponds. Morphology and ecology of representative commercial and game fishes in Maryland, the Chesapeake blue crab and the oyster. (Truitt.)

ZOOL. 110 f. *Organic Evolution* (2) — Two lectures. Prerequisites, two semesters of biological science, one of which must be either Zool. 1 or Zool. 6.

The object of this course is to present the biological data on which the theories of evolution rest. The lectures will be supplemented by discussion, reports and collateral reading. (Pierson.)

ZOOL. 115 y. *Vertebrate Zoology*—Credit hours and schedule to be arranged to suit the individual members of the class.

Each student may choose, within certain limits, a problem in Taxonomy, Morphology or Embryology. (Pierson, McConnell.)

ZOOL. 140. *Marine Zoology*—Credit to be arranged.

This work is given at the Chesapeake Laboratory, which is conducted co-operatively by the Maryland Conservation Department and the Department of Zoology and Aquiculture, on Solomons Island, where the research is directed primarily toward those problems concerned with commercial forms, especially the blue crab and the oyster. The work starts during the third week of June and continues until mid-September, thus affording ample time to investigate complete cycles in life histories, ecological relationships and plankton contents. Course limited to few students whose selection will be made from records and recommendations submitted with applications, which should be filed on or before June 1st.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges and other apparatus) and shallow water collecting devices are available for the work without extra cost to the student. (Truitt.)

AGRON. 101 f. *Genetics* (3)—(See Agronomy).

For Graduates

ZOOL. 200 y. *Zoology Problems*. (Pierson, Truitt.)

SECTION IV

DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED, 1926

HONORARY DEGREE

LIDA LEE TALL, Doctor of Letters

HONORARY CERTIFICATE OF MERIT

JAMES WILSON DAVIS

ABRAM GORSUCH ENSOR

HENRY PHILLIP MILLER

THE GRADUATE SCHOOL

Doctor of Philosophy

VICTOR RICKMAN BOSWELL

B. S. University of Missouri,
1922.

M. S. University of Maryland,
1923

HORACE SMITH ISBELL

B. S. University of Denver, 1920.

M. S. University of Denver, 1924.

DANIEL CHARLES LICHTENWALNER

B. S. Lafayette College, 1917.

M. S. University of Maryland,
1923.

REGINALD ROBERT MCKIBBIN

B. S. McGill University, 1923.

EDGAR BENNETT STARKEY

B. S. University of Maryland,
1921.

M. S. University of Maryland,
1922.

CHARLES EDWARD WHITE

B. S. University of Maryland,
1923.

M. S. University of Maryland,
1924.

Dissertation:

"A Study of Some Environ-
mental Factors Influencing
the Shooting to Seed of Win-
tered-Over Cabbage."

Dissertation:

"The Chemistry of Gold Carbon
Compounds."

Dissertation:

"Heat Changes Accompanying
Adsorption Equilibria in So-
lution."

Dissertation:

"The Effect of Sulphur on Soil
Reaction and Plant Growth."

Dissertation:

"A Test of the Theory of Partial
Polarity. The Addition of
Halogen Acids to Double
Bonds in Inert Solvents."

Dissertation:

"The Effect of the Presence of
Phosphates on the Adsorption
of Acid Dyes by Mordants."

Master of Arts

VIRGINIA WEMYSS BREWER
FRANKLIN D. DAY
ELIZABETH FLENNER EPPLEY
PAUL SARDO FRANK
GEORGE PAGE GARDNER
PHILIP WILDE GATES
DOWELL JENNINGS HOWARD

HENRY ELLSWORTH MCBRIDE
THOMAS CARLYLE MARTIN
CLARENCE ODIE MINATRA
CLARENCE REESE SHOEMAKER
HENRY CARLETON WICKARD
BENJAMIN COPPAGE WILLIS
THELMA HALSAN WINKJER

Master of Science

WILLARD WALKER ALDRICH
HOWARD REFORD ALDRIDGE
PEARL ANDERSON
GEORGE EZEKIEL BOUIS
WALTER DAVIS BROMLEY
JOHN ARMISTEAD BURROUGHS
HOUGHTON GEORGE CLAPP
GILES BUCKNER COOKE
ANNA HELEN EMILY DORSEY
GEARY EPPLEY
GEORGE HOMER FANCHER
ROGER FRANCIS HALE

MARK HUGHLIN HALLER
MILLARD JACOB HORN
HERMAN AULL HUNTER
LEONARD BRIDWELL LINCOLN
HOUSDEN LANE MARSHALL
ISABEL ELLIOTT MCKINNEL
PAUL VINCENT MOOK
ROBERT PAUL STRAKA
RICHARD LAYTON SUMMERILL
ROSS FRANKLIN WADKINS
HENRY MADISON WALTER
NATHANIEL JOHN WILSON

COLLEGE OF AGRICULTURE

Bachelor of Science

ALBERT AUGUSTINE ADY
JAMES HOUSE ANDERSON
PAUL EDGAR BAUER
JOHN HURLEY CARTER
WALTER RIFFLE COMER
LEO ALOYSIUS CROTTY
HERBERT DIECKMANN
*LEWIS P. DITMAN
JOSEPH STROUP ENDSLOW
LEONEL KEMP ENSOR
WILLIAM HARGIS EVANS
JOHN EDGAR FABER, JR.
JOSEPH DARLINGTON HOOPES
HARRY STEVENS HUBBARD
THEODORE WHITNEY JOHNSON
THOMAS CHADWICK KELLEY
EUGENE WILKINSON KING
JOHN KENNETH WILSON

JOSEPH L. MCGLONE
JOHN BROOME MORSELL
LIONEL EASTMAN NEWCOMER
KENT SPARKS PRICE
EMMONS HECKLAR REED
CHARLES HARMON REMSBERG
HARRY FRANKLIN RICHARDSON
PETER PAUL SCHRIDER
*ERNEST HUGHES SHIPLEY
PAUL WILLIAM SMITH
HARRY ABERNETHY STEWART
WILLIAM CARLETON SUPPLEE
LETHA ERNEST TAYLOR
FRANCIS RIDGELY TODD
DWIGHT TALMAGE WALKER
EARNEST ARTMAN WALKER
MILTON STEWART WHALEY

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

JAMES HENRY BOUNDS	ERIC CARL METZEROTH
THOMAS ALEXANDER BROWNE	GEORGE TIMOTHY O'NEILL
EDWARD A. CHRISTMAS	ARTHUR CHARLES PARSONS
ALFRED HENRY CLARK	*CATHERINE PERDUE
EUGENIA WITHERS CLEMENT	KARL GRAHAM PFEIFFER
WADE GILBERT DENT, JR.	HUGH D. READING
GEORGE WILLIS FOGG	*MARY ERNESTINE SAVAGE
HELEN MAY GOLDMAN	CLARA MARGARET SHEPHERD
*MASON HENLEY HOPWOOD	*ARCHIE SPINNEY
PAUL ELISHA HUFFINGTON	KENNETH GORDON STONER
JOHN RALPH LANIGAN	JOHN HENRY STRITE
*EDWARD MARKLEY LOHSE	THELMA IRENE TAYLOR
EDWARD B. LONGYEAR	*IRIS WHITE
CHARLES H. R. MERRICK	PATRICIA WOLF
NADIA VIRGINIA WRIGHT	

Bachelor of Science

HAROLD ADOLPH BONNET	ADAM DOWNEY OSBORN
EDWARD THOMAS EVANS	JOHN EARLE RICE
*CHRISTIAN MATTHEW FLEMING	ELDRED ROBERTS
WINSHIP IDdings GREEN	FRED SHARP SCOTT
GEORGE KIRBY HOLMES, JR.	*JOSEPH HING-LIONG TAN
CHARLES KINSLEY McDONALD	RITCHIE P. TAYLOR

Bachelor of Science in Arts and Nursing

SISTER MARY CELESTINE DOYLE	SISTER MARY ANITA STOUTENBURGH
SISTER MARY FLORENCE GARNER	SISTER MARY JOAN DE ARC WILSON
SISTER MARY HELEN RYAN	

SCHOOL OF BUSINESS ADMINISTRATION

Bachelor of Science in Business

EDGAR HEATH CONEY	JULIAN J. MASTERS
JOHN LEO MCKEWEN	HELEN DEE SMALL

Bachelor of Business Administration

ORVILLE W. CORKRAN	HELEN SEGALL
J. RUSSELL MEDFORD	

Bachelor of Commercial Science

J. ELWOOD ARMSTRONG, JR.	WILBUR CHARLES CROSBY
J. SAMUEL COHEN	NORMAN GOLDBERG
SETH SEARS DAY	RALPH LEROY LOCKARD
HARRY STEWARD DONOWAY	THOMAS FRANCIS McDONALD

J. GUY MANFUSO
LEON MOSS
ALBERT E. SMITH
ARBUTUS S. M. STANGE

WILLIAM H. STUTMAN
CHARLES A. TRAGESER
WILLIAM R. WALTON, JR.
THEODORE WEITZMAN

Certificate in Business

ROBERT BERNSTEIN
ALFRED D. BUSCH
GRANVILLE M. DARSCH
CARROLL DAVIS
NATHAN I. FRIEDMAN
ISADORE H. GONCHARSKY
MAURICE M. LEVITT

HERMAN M. LEWIS
JOSEPH ANTHONY NAEGELE
GEORGE E. ROGERS
SIDNEY S. RUBENSTEIN
GEORGE COFFORTH STIERHOFF
GERALD M. WEBER
JAMES ROGER YATES

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

J. LEE AKERS
MILTON F. ANDERSON
BOLESLOW S. BABOWICZ
WALTER LANNEAU BADGER
ROLAND ALCIDE BARRETTE
JOHN ORMAND BATES
ARTHUR ADELARD BEGIN
BOMEDA B. BENNAZZI
COVERT O. BENSON
EDWARD V. BINNS
MURRAY R. BLAIR
ROBERT E. BLAIR
NORMAN K. BLANCHARD
MAXIME W. BLOUCHARD
ERNEST M. BOURGEOIS
ROY HYNES BRIDGER
LEONARD R. BRIGADIER
WILLIAM DUBOIS BROWN
CHARLES SHUGART BROWN
EDWIN JOSEPH BUCKLEY
FRANCIS JOSEPH BUDZ
ALBERT SHERIDAN BUMGARNER
WESLEY COLE BYRON
LOUIS P. CAINE
VINCENT ALLYN CARROLL
MATTHEW A. CHU-CHEONG
HARRY HUGH CRICKENBERGER
WILLIAM ROGERS DAVIS
HARRY H. DEGLING
LEO EDWARDS DESLANDES

FRANCIS JOSEPH DOHERTY
JOSEPH KYLE DOLAN
CALEB DORSEY, JR.
ALBERT FRANCIS DUNPHY
WALTER H. T. ELLIOT
PAUL LOUIS FIESS
JOHN JOSEPH FOLEY, JR.
JOSEPH D. FUSCO
EDWARD P. GANNON
ENRIGUE BIOSCA GIROUD
ARDIE WILLIAM GREGORY
CORNELIUS CARLISLE HAGERTHY
GEORGE EDWARD HARDY III
ROBERT HENRY HOLLIDAY
WILLIAM A. INGRAM
BENJAMIN J. JACOBS
JAMES JOULE
MORTON KAPLON
WALTER LEE KEISTER
CHARLES A. KELLY
JOHN E. KILCOYNE, JR.
JOSEPH DEMPSEY KING
JAMES HAROLD KLOCK
MICHAEL LEWIS KOZUBSKI
HENRY LEWIS LAUTENBERGER
CHARLES BARRON LAZZELL
EDMUND J. LEGER
SAMUEL LIPMAN
MAIN EUGENE LITTLE
EMERSON ELIJAH LOAR

ROBERT CLEMENT LONERGAN
 ARCHIE McALEXANDER
 WILLIAM I. L. MCGONIGLE
 NIEL MacDONALD
 KENNETH A. MAGEE
 JOSEPH MARX
 CAREY O. MILLER
 HYMAN MINKIN
 ARTHUR RANDOLPH MOCKRIDGE
 DAVID MONK
 THOMAS E. MORRIS
 JOSEPH THOMAS NELSON, JR.
 WARD MILTON NEWELL
 NATHANIEL S. NUGER
 WALTER LEAVENWORTH OGGESEN
 RICHARD METZ PHREANER
 BENJAMIN PINSKY
 HUBERT SEAFORD PLASTER
 WILLIAM HERBERT POWELL
 SAMUEL PRESSMAN
 JAMES EDWARD PYOTT
 LEO REYNOLDS
 CLARENCE W. RICHMOND
 JAMES EDWARD RYAN
 BENJAMIN PAUL SANDY
 ALFORD JACK SCHWARTZ
 PAUL R. J. SEERY

HARRY LEVIN
 JAMES PATRICK SPELLMAN
 CHARLES BUDD SPRINGER
 WARREN WILLIAM STRATTON
 LOUIS SHAPIRO
 NICHOLAS A. SHARP
 ABRAM A. SHUTTERS
 WALLACE PHILLIPS SMITH
 FREDERICK H. TIDGEWELL, JR.
 FRED EDWARD TOULOUSE, JR.
 JOHN MILTON TOWERS
 GEORGE EDWIN TOWNES, JR.
 WILLIAM EDWARD TRAIL
 RALPH WHITEMAN TRENT
 J. LeROY TRONE
 EUGENE ELDERDICE VEASEY
 ROBERT DEAN WALKER
 WILLIAM PHILIP WALSH
 HENRY MAYNARD WALTER
 SAMUEL H. WARSHAWSKY
 ALLAN LEE WATTS
 ELMORE MILLER WEBB
 WILLIAM PIERRE WEEKS
 ROBERT WILLIAM WHITCOMB
 PAUL ALOYSIUS WIERCIAK
 P. W. WINCHESTER
 EDWARD WILLIAM ZWLINSKI

ANDREW ZWICK

COLLEGE OF EDUCATION

Bachelor of Arts

*ELIZABETH HALL BEAR	JOSEPH THOMAS PYLES, JR.
JOHN EDWARD ENNIS	JOHN JOSEPH RAY
TRUMAN STONER KLEIN	LOUISE RICHARDSON
JOSEPH CLIFFORD LONGRIDGE	GEORGE HENRI SCHMIDT
DOROTHY MURRAY	IRA MCDUELL STALEY, JR.
EDWIN ERVIN NIHISER	WALTER HOWARD TROXELL
HARRY PAUL PORTON	WILLIAM HAMILTON WHITEFORD

DOROTHY OLIVER YOUNG

Bachelor of Science

LAURA BETTY AMOS	PHYLLIS MORGAN
KATHERINE LOUISE BAKER	VICTORINE GARTH NICOL
EDWARD MARION BARRON	PRISCILLA BALLINGER PANCOAST
BENJAMIN HUGH BENNETT	JOHN CLARKE SEIBERT
*MARY MILLER BROWNE	JOSEPH HAROLD SEIBERT
*EARL DOWNIN HUYETT	SARAH OLIVE WALLACE

MARGARET BEALL WOLFE

Teachers' Special Diploma

ALBERT AUGUSTINE ADY
 LAURA BETTY AMOS
 KATHERINE LOUISE BAKER
 *ELIZABETH HALL BEAR
 BENJAMIN HUGH BENNETT
 WALTER DAVIS BROMLEY
 *MARY MILLER BROWNE
 JOHN HURLEY CARTER
 EUGENIA WITHERS CLEMENT
 JOSEPH STROUP ENDSLOW
 JOHN EDWARD ENNIS
 JOHN EDGAR FABER, JR.
 PHILIP WILDE GATES
 *EARL DOWNIN HUYETT
 TRUMAN STONER KLEIN
 JOSEPH CLIFFORD LONGRIDGE
 PHYLLIS MORGAN
 DOROTHY MURRAY
 EDWIN ERVIN NIHISER
 GEORGE TIMOTHY O'NEILL
 PRISCILLA BALLINGER PANCOAST

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 MARGARET BEALL WOLFE
 LELAND GRIFFITH WORTHINGTON
 NADIA VIRGINIA WRIGHT
 DOROTHY OLIVER YOUNG

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COLLEGE OF ENGINEERING

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Bachelor of Science

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Bachelor of Science

MARIE ESTELLE LANGENFELDT	MARY ELIZABETH RILEY
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*Received degrees October 6, 1926.

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ELIZABETH SCOTT
CAROL CRYSTAL SHOULTZ
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THEODORA H. SPERBER

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MEYER MILBY BAYLUS
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JOHN HENRY BRADFORD
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MORRIS WOLFE
JOHN HALLER ZIEGLER

Pharmaceutical Chemist

ARTHUR STORCH

MEDALS, PRIZES AND HONORS, 1926

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LAURA BETTY AMOS
PEARL ANDERSON
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ROBERT SURGUY CARUTHERS
ALFRED HENRY CLARK
ELLSWORTH FRANCIS DEATLEY
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DANIEL CHARLES LICHTENWALNER
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PHYLLIS MORGAN
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EDWARD STOOPS THOMPSON
REGINALD VAN TRUMP TRUITT
SARAH OLIVE WALLACE
NADIA VIRGINIA WRIGHT

DOROTHY OLIVER YOUNG

Citizenship Medal, offered by Mr. H. C. Byrd, Class of 1908

MILTON STEWART WHALEY

Citizenship Prize, offered by Mrs. Albert F. Woods

LAURA BETTY AMOS

Athletic Medal, offered by the Class of 1908

WILLIAM CARLETON SUPPLEE
Athletic Trophy for Women

PATRICIA WOLF

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JOSEPH DARLINGTON HOOPES

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JAMES HOUSE ANDERSON

College of Arts and Sciences

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PATRICIA WOLF

Second Honors—GEORGE WILLIS FOGG, ALFRED HENRY CLARK,
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College of Education

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Second Honors—LAURA BETTY AMOS, PRISCILLA BALLINGER PANCOAST,
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College of Engineering

First Honors—SAMUEL LEBOWITZ, EDWARD ELLESMERE MCKEIGE,
ELLSWORTH FRANCIS DEATLEY

Second Honors—EDWARD STOOPS THOMPSON, ROBERT SURGUY CARUTHERS

College of Home Economics

First Honors—MARY ELIZABETH RILEY

School of Business Administration

Delta Sigma Pi Key, Honorary Award for Scholarship to
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School of Dentistry

University Gold Medal for Scholarship

WALTER L. OGGESEN

GEORGE E. HARDY III

Honorable Mention

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School of Medicine

University Prize, Gold Medal—ELIZABETH BOWMAN SHERMAN

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Pathology During the Second and Third Years

ELIZABETH BOWMAN SHERMAN

The Dr. Leo Karlinsky Memorial Scholarship Awarded to Student in
Freshman Class with Highest Standing

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School of Nursing

University of Maryland Nurses' Alumnae Association Scholarship to
Columbia University

ELSIE VERA MARIE SPERBER

University of Maryland Nurses' Alumnae Association Pin and
Membership in the Association

DOROTHY REBEKAH GLOVER

School of Pharmacy

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Simon Prize for Practical Chemistry—JOHN CONRAD BAUER

CERTIFICATE OF HONOR

HARRY STINE

Honorable Mention—First Year Class

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KENNETH F. SPENCE, Major, Commanding Battalion
GEORGE W. MORRISON, Captain, Adjutant
ROBERT B. LUCKEY, First Lieut., and Operations and Training Officer
PAUL B. GUNBY, First Lieut. and Intelligence Officer

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Stanton, Harvey H., Grantsville
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 Rothgeb, Edwin E., Washington, D. C.
 Seal, Eleanor C., Washington, D. C.
 Seltzer, Olive M., Washington, D. C.
 Sheriff, Leroy W., Wadsworth, Ohio
 Shipley, J. Linwood Parks, Hyattsville
 Sims, Martha T., Washington, D. C.
 Snyder, Wilbur N., Randallstown
 Spence, Mary, College Park
 Sprecher, Milford H., Fairplay
 Stevenson, Kathryn C., Mt. Lake Park
 Sumner, Howard C., Washington, D. C.
 Taylor, Elizabeth J., Washington, D. C.
 Terhune, Frank H., Ridgewood, N. J.
 Tingley, Egbert F., Hyattsville
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 Truesdell, Phillip P., Waupaca, Wis.
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 Wilson, Robert J., Buffalo, N. Y.

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 Blanz, Clarence T., Washington, D. C.
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 Brackbill, Frank Y., Berwyn
 Brill, Bernard, Brooklyn, N. Y.
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 Carrioco, Louis G., Bryantown
 Carrington, Raymond, South Orange, N. J.
 Cheek, William R., Washington, D. C.
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 Clayton, Thompson B., Chevy Chase
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 Lanier, Eldred S., Washington, D. C.
 Lipkin, Ben, Paterson, N. J.
 Longenberger, Donald T., Chevy Chase
 Louft, Reuben, Capitol Heights
 Lowe, Cletus D., Shepherdstown, W. Va.
 Lubin, Paul, Baltimore
 Marlow, E. Louise, College Park
 McEntee, Howard G., Ridgewood, N. J.
 McFadden, Emory L., Pylesville
 McGann, Burton A., Washington, D. C.
 Merrill, Charles M., Washington, D. C.
 Middleton, Frederic A., Washington, D. C.
 Miliner, Nona A., Stevensville
 Millett, Joseph, Baltimore
 Myers, John A., Washington, D. C.

Zupnik, Howard L., New Freedom, Pa.

SOPHOMORE CLASS

Acosta, Raul R., Aquadilla, Porto Rico
 Aldrey, Jorge M., San Juan, Porto Rico
 Alexander, James F., Chevy Chase
 Aman, George, Hyattsville
 Andrews, Robert S., Cambridge, Mass.
 Atkinson, Eva L., Washington, D. C.
 Barnard, Ruth, Perryville
 Benedetti, Robert A., Panama, Panama
 Berkelhammer, Albert M., Trenton, N. J.
 Billmeyer, Bruce R., Cumberland
 Black, H. Ross, Jr., Hanover, Pa.
 Bobys, Maurice, Washington, D. C.
 Boyd, Richard K., Connellsville, Pa.
 Boyer, Roswell R., Baltimore
 Bradstreet, Fred E., New Haven, Conn.
 Brophy, Thomas L., Renovo, Pa.
 Budlong, Herbert N., Washington, D. C.
 Burnside, Edna M., Washington, D. C.
 Burnside, Edith F., Washington, D. C.
 Burgess, Flora E., Washington, D. C.
 Burroughs, George T. D., Upper Marlboro
 Byrne, Julian C., Boston, Mass.
 Cable, John W. III, Chewsville
 Caldwell, Stuart A., Riverdale
 Clark, R. Duncan, Chevy Chase

Newnam, Alpheus C., Jr., Bellevue
 O'Donnell, Roger, Jr., Washington, D. C.
 Olds, Edson B., Jr., Silver Spring
 Phillips, Elizabeth C., Hebron
 Powers, Ralph W., Hyattsville
 Press, William H., Washington, D. C.
 Rosenstein, Sidney, Jersey City, N. J.
 Ryerson, John E., Washington, D. C.
 Savage, John E., Washington, D. C.
 Schueler, John E., Relay
 Schuman, Nathan G., Washington, D. C.
 Seabold, William M., Catonsville
 Shoemaker, Norman I., Pt. Pleasant, N. J.
 Shook, Donald E., Washington, D. C.
 Simonds, Florence M., Berwyn
 Slemmer, Carl F., Cumberland
 Snouffer, Edward N., Jr., Buckeystown
 Snouffer, Roger V., Buckeystown
 Spottswood, H. Nelson, Washington, D. C.
 Swanson, Margaret V., Pilot Mountain, N.C.
 Thompson, Nova O., Cumberland
 Troth, Edward L., Chevy Chase
 Venezky, Adelyn B., Hyattsville
 Waller, William K., Queenstown
 Ward, Herbert K., Rockville
 Weiland, Glenn S., Hagerstown
 Weisman, A. Frank, Baltimore
 Wirsing, Floyd H., College Park
 Wirts, Carl A., Pittsburgh, Pa.
 Wood, Emily T., Frederick
 Wu, Helen W., Peking, China
 Zulick, J. Earle, Houtzdale, Pa.

Clayton, Albert W., Brookland, D. C.
 Comodo, Nicholas M., Hartford, Conn.
 Conrey, Elden E., Randallstown
 Corkins, Jane E., Riverdale
 Cramer, Elmer R., Hagerstown
 Creed, Eugene, Jr., Frederick
 Crothers, Omar D., Jr., Elkton
 Davolos, Joseph J., Wilmington, Del.
 Dean, Thurston N., Washington, D. C.
 Dent, Charles A., Mutual
 Diamond, Joseph G., Long Branch, N. J.
 DiStasio, Frank, New Haven, Conn.
 Doukas, James T., Towson
 Dumler, John C., Baltimore
 Epstein, Herman, Centreville
 Feingold, David, Baltimore
 Fisher, Paul L., Washington, D. C.
 Foreman, C. Lucille, Washington, D. C.
 Gause, Clemencia A., Rockville
 Gentile, Charles A., Branchville
 Goldstein, Robert, Newark, N. J.
 Guertler, Albert L., Schuylkill Haven, Pa.
 Haimowicz, Samuel J., Union City, N. J.
 Hale, Walker A., Washington, D. C.
 Halperin, David, Jersey City, N. J.

Hammack, Olyure M., Marbury
Hearn, Wilfred A., Chevy Chase
Hoar, Robert E., Ridgewood, N. J.
Holland, John E., Jr., Princess Anne
Holzapfel, Henry III, Hagerstown
Holzapfel, William M., Hagerstown
Hopkins, William L., Salisbury
Hudson, James B., Jr., Stockton
Hughes, Thomas A., Delta, Pa.
Hughes, Warren B., Washington, D. C.
Hutchison, Jean C., Washington, D. C.
Insley, Philip A., Cambridge
Insley, Richard C., Salisbury
Insley, Wade H., Jr., Salisbury
Israelson, Reuben H., Baltimore
Jacobson, Howard S., Newark, N. J.
Kaminsky, Aaron L., Newark, N. J.
Keenan, John L., Windber, Pa.
Kessler, Gordon A., Washington, D. C.
Kimmel, Charles, Newark, N. J.
Klimes, Louis F., Baltimore
Klitzky, B. Max, Washington, D. C.
Korostoff, Bernard, Brooklyn, N. Y.
Kreider, Harold L., Hyattsville
Kyle, Wesley H., Waterbury
Lafsky, Benjamin P., Washington, D. C.
Lamar, William L., Takoma Park
Lankford, Albert E., Princess Anne
Laughlin, Rose Alice, Cumberland
Lestz, Bertha S., Lancaster, Pa.
Lewis, Alton C., Bridgeville, Del.
Linton, Fred B., Takoma Park
Marrero, Juan P., Dorado, Porto Rico
McMillan, Robert P., Washington, D. C.
McNeil, Walter G., Washington, D. C.
Miller, Elizabeth, Baltimore
Myers, Alfred T., Riverdale
Myers, Edith K., Cumberland
Norton, John H., Hagerstown
Oland, George C., Olney
Ort, Harry C., Midland
Parks, Claude M., Chestertown
Philips, Alice P., Hyattsville

FRESHMAN CLASS

Adams, Leason B., Washington, D. C.
Adams, Vincent F., Baltimore
Alagia, Lucia C., Elkton
Allen, Ira B., Seaford
Anderson, Gilbert F., Townshend
Andrews, Philip G., Cambridge
Archer, Charles S., Jr., Pylesville
Arnold, Frances E., Mt. Rainier
Aronstein, Charles, Washington, D. C.
Asencio, Fernando, Mayaguez, Porto Rico
Barber, William B., Laurel
Barnsley, Catherine D., Rockville
Barnsley, George T., Rockville
Barry, Joseph C., Jewett City, Conn.
Bass, Sidney, Mt. Rainier

Pincus, Morris H., Brooklyn, N. Y.
Pink, Sol H., Passaic, N. J.
Plumley, Walter P., Jr., Takoma Park
Pollock, Addison S., Washington, D. C.
Porter, Francis J., Takoma Park
Racusin, Nathan, Baltimore
Reyman, Miriam, Mt. Vernon, N. Y.
Rice, George M., Washington, D. C.
Rosenfeld, David A., Washington, D. C.
Rubenstein, Robert, Jersey City, N. J.
Sager, Harold, Bayonne, N. J.
Sanchez, Adolfo, Mayaguez, Porto Rico
Sellman, Frances L., Beltsville
Semsky, Gustav J., Little Falls, N. J.
Shaw, James Lee, Cumberland
Shepherd, Edward A., Hyattsville
Simmons, John F., Cambridge
Simmons, Robert C., Takoma Park, D. C.
Smink, Douglas, Baltimore
Smith, Hewitt W., Greensboro
Snyder, Gerald T., Windber, Pa.
Speiden, Gertrude C., Riverdale
Statman, Arthur J., Newark, N. J.
Sterling, Susanne, Crisfield
Stiffler, Bartram F., Silver Spring
Sugar, Jeanette C., Washington, D. C.
Teitelbaum, Harry A., Brooklyn, N. Y.
Temple, Margaret E., Riverdale
Tenney, Hazel J., Hagerstown
Tippett, Edith I., Cheltenham
Venezky, Julian, Hyattsville
Warren, John F., Riverdale
Washburn, Henry H., Lutherville
Watson, Hazel E., Hancock
Wenger, Benjamin E., Washington, D. C.
Wertheimer, Philip, Frederick
Wick, Robert M., Washington, D. C.
Winnemore, Augustine E., Chevy Chase
Wondrack, J. Arthur, Washington, D. C.
Woolman, Milly L., Hillside, N. J.
Woronow, Albert, Washington, D. C.
Wylie, William C., Washington, D. C.
Zalewski, Irene J., Passaic, N. J.

Bullard, Marian P., Riverdale
Bush, John M., Hampstead
Caples, Delmas, Reisterstown
Carmichael, Elizabeth L., Riverdale
Carroll, George H., Hyattsville
Chaconas, Thomas J., Washington, D. C.
Chaffinch, William P., Easton
Claffin, Marguerite, College Park
Cobey, William W., Quincy, Fla.
Cohen, Abraham, Passaic, N. J.
Collins, Richard L., Washington, D. C.
Colosimo, Vincent J., Frostburg
Conk, Robert H., Long Branch, N. J.
Cook, Albert C., Frostburg
Crunkleton, Margaret R., Baltimore
Dallas, Robert W., Salisbury
Dawson, Catherine H., Rockville
Dean, Charles T., Ridgely
delPozo, Virgilio, Manato, Porto Rico
Dent, John H., Clinton
Devor, Eleanor E., Takoma Park
Doukas, Louis A., Towson
Downing, Robert R., Nottingham
Dueno, Braulio, Bayamon, Porto Rico
Duvall, Joseph B., Naylor
Dynes, Isabel, Chevy Chase
Eckenrode, Edythe, Reisterstown
Evans, William W., Chevy Chase
Everhart, Oscar C., Momence, Ill.
Everstine, Carl N., Cumberland
Ewald, August L., Jr., Baltimore
Fletcher, William, Takoma Park, D. C.
Fleming, Roy E., Woodbine
Fooks, Sarah V., Preston
Frame, Charles W., Hyattsville
Franklin, Frank A., Orange, N. J.
Friedman, Hyman P., Brooklyn, N. Y.
Friedenwald, Aaron, Baltimore
Gable, Raymond E., Washington, D. C.
Gahan, James B., Berwyn
Gallup, Adelaide D., Harrisburg, Pa.
Gardiner, John L., Berwyn
Gilchrist, Homer, Nyack, N. Y.
Ginnavon, Dorothy, Montgomery, Ala.
Gladding, Paul J., Pocomoke City
Goldstein, Morton A., Baltimore
Gordon, Seymour, New York, N. Y.
Gott, Richard V., Annapolis
Gray, Harry E., Riverdale
Grove, Frances E., Hagerstown
Gruver, Evangeline T., Hyattsville
Haines, Ernest V., Washington, D. C.
Haller, Franklin M., Brandywine
Hamer, Squire E., Westernport
Hamilton, John C., Cumberland
Hammersley, Wm. L., Jr., Frankfort, Ind.
Harkins, Kenneth I., Street
Harris, Walter G., Baltimore
Hays, Ruth C., Washington, D. C.
Heagy, Albert B., Washington, D. C.

Healy, Robert F., Glyndon
Hearne, Charles E., Salisbury
Heintz, William W., Washington, D. C.
Held, Charles W., Towson
Henry, John B., Hancock
Herrmann, Margaret G., Baltimore
Herstein, Max H., Newark, N. J.
Hetzel, Fred Z., Cumberland
Holter, Amos A., Jefferson
Howard, John M., Hyattsville
Hudson, Edward E., Towson
Hughes, Richard C., Washington, D. C.
Hultquist, Alfred F., Warren, Pa.
Humphreys, Arthur C., Jr., Snow Hill
Hutchinson, William E., Hyattsville
Janetzke, Nicholas A., Baltimore
Jemison, William Z., Washington, D. C.
Jester, James M., Ocean City
Jones, Elizabeth S., Olney
Jones, Robert L., West Pawlet, Vt.
Kahney, Norma M., Baltimore
Kalmbach, Virginia M., Washington, D. C.
Kay, Thomas N., Elk Mills
Keister, John T., Washington, D. C.
Kelley, William C., Washington, D. C.
Kelly, James P., Towson
Kieffer, Joseph D., Baltimore
Kinnamon, William J., Easton
Koons, Melvin E., Washington, D. C.
Ladson, Jack A., Olney
Lambert, John R., Washington, D. C.
LaQuay, Kenneth B., Hyattsville
Lawless, Ruth C., Washington, D. C.
Lawson, Chester A., Warren, Pa.
Lee, Parker A., Elizabeth, N. J.
Leschinsky, Frank A., Annapolis Junction
Leventhal, Louis, Washington, D. C.
Lewis, Gordon A., Hagerstown
Lillie, Rupert B., Washington, D. C.
Linzey, Urban T., Towson
Litman, Louis A., Washington, D. C.
Littlejohn, Forrest C., Shenandoah Junction, W. Va.
Littman, Simon, Baltimore
Lucas, William L., Baltimore
Lyons, William A., Clinton
Mace, Burnam C., Cambridge
Markey, David J., Frederick
Matheke, George A., East Orange, N. J.
Maxwell, Grace, Luke
Mazzolini, Andrew R., Holyoke, Mass.
McAllister, Margaret E., Washington, D. C.
McCandlish, Robert J., Hancock
McDonald, John E., Alexandria, Va.
McLeod, Florence C., Alexandria, Va.
McMahon, James E., Fall River, Mass.
Medwedeff, Jack L., Baltimore
Meigs, Margaret, Bethesda
Mister, Fulton T., Baltimore
Mitchell, Margaret P., Riverdale

Morris, Isaac S., Federalsburg
 Morris, James S., Pylesville
 Morse, Daniel A., Pocomoke City
 Myers, Thomas E., Washington, D. C.
 Naudain, John C., Sparrows Point
 Nichols, Myers, Fairmont, W. Va.
 Norris, Milton D., Sykesville
 Orton, Alice L., Takoma Park, D. C.
 Page, William T., Jr., Chevy Chase
 Painter, Clarence L., Pulaski, Va.
 Palmer, Edgar B., Frederick
 Palmer, Marian K., Philadelphia, Pa.
 Parker, Henry W., Berlin
 Parker, Jack E., Beltsville
 Perzynski, Walter J., Baltimore
 Porter, Phil L., Washington, D. C.
 Powers, Jerrold V., Hyattsville
 Radice, Julius J., Washington, D. C.
 Ramsburg, Morris M., Lewistown
 Rankin, Carroll S., Baltimore
 Rasch, Richard K., Washington, D. C.
 Reckson, Morris M., Brooklyn, N. Y.
 Remsburg, Robert K., Middletown
 Ridenour, Joseph E., Boonsboro
 Ridout, Evelyn S., Annapolis
 Roberts, George H., Washington, D. C.
 Robertson, John V., Ridgewood, N. J.
 Robinson, Daniel R., Brooklyn, N. Y.
 Roseberry, Byron L., Baltimore
 Rosenbaum, Irving H., Newburgh, N. Y.
 Rosenbaum, William T., New York, N. Y.
 Rosenberg, Morris M., Brooklyn, N. Y.
 Ross, Charles R., Hyattsville
 Rykerd, Arthur C., Jr., Silver Spring
 Ryon, Elsie E., Waldorf
 Sammons, Sudler E., Georgetown, Del.
 Schilling, Barbara, Cumberland
 Schlegel, Harry F., Washington, D. C.
 Schultz, Joseph R., Upperco

Scoles, Peter S., Long Branch, N. J.
 Scruggs, William H., Washington, D. C.
 Settle, Robert T., Baltimore
 Shapiro, Julius A., Washington, D. C.
 Sharf, Alec T., Hampton, Va.
 Sillman, Albert, Attleboro, Mass.
 Simmons, Benjamin S., Washington, D. C.
 Spector, Samuel A., Baltimore
 Stimpson, Edwin G., Washington, D. C.
 Streett, Harry G., Litchfield, Ohio
 Strully, Joseph G., Bronx, N. Y.
 Sutton, Paul F., Washington, D. C.
 Tawney, Chester W., Havre de Grace
 Theodore, Paul S., Baltimore
 Thorne, Walter A., Riverdale
 Topper, Ambrose A., Windber, Pa.
 Tous, Joseph, Ponce, Porto Rico
 Umbarger, John N., Bel Air
 Valliant, Edwin S., Centerville
 Virgona, John J., Jersey City, N. J.
 Voris, Lucy R., Laurel
 Walters, James H., Point of Rocks
 Warburton, Henry A., Jr., Elkton
 Warcholy, Nicholas, Passaic, N. J.
 Ward, Elizabeth M., Washington, D. C.
 Ward, Julius R., Paris
 Weitz, Edward, Jersey City, N. J.
 Whiteley, Millard S., Preston
 Williams, Loris E., Takoma Park, D. C.
 Williams, Richard J., Cumberland
 Willis, Clarence M., Jr., Easton
 Wilson, Charles E., Rockford, Ill.
 Wilson, Harry N., Ingleside
 Wilson, James S., Washington, D. C.
 Wilson, William K., Chevy Chase
 Wisner, Margaret, Takoma Park
 Wright, Genevieve G., Washington, D. C.
 Zimmerman, Fred, New York, N. Y.
 Zukovsky, Julius, Passaic, N. J.

UNCLASSIFIED

Beard, Edythe, Washington, D. C.
 Clay (Mrs.), J. C., College Park

Engle, Margaret G., Baltimore
 Graybill, Mary R., College Park

EXTENSION CHEMISTRY COURSE (BALTIMORE)

Arnold, William S., Baltimore
 Carter, Roscoe H., Edgewood
 Hammond, John A. S., Woodlawn
 Howes, Charles C., Baltimore
 Johnson, Mildred A., Baltimore
 Kenny, William R., Baltimore

Lentz, George A., Baltimore
 Long, William T., Baltimore
 Myers, Henry A., Baltimore
 Rockwell, Paul O., Edgewood
 Stickels, Arthur E., Baltimore
 Wiley, Cecil J., Baltimore

SCHOOL OF DENTISTRY

SENIOR CLASS

Abrams, Samuel, Jersey City, N. J.
 Alvarez, Rafael R., Cuba
 Apirian, John, New York City
 Baish, Eugene L., Baltimore
 Bock, Carl F., Baltimore

Boggs, Richard H., Franklin, W. Va.
 Boggs, Robert A., Marietta, Ohio
 Burns, Howard R., Bergenfield, N. J.
 Bush, Harry L., Park Ridge, N. J.
 Byer, Samuel H., Trenton, N. J.

Cahill, Thomas J., Baltimore
 Casaino, Dominick N., Jersey City, N. J.
 Catusus, Emilio, Cuba
 Cavallaro, Augustine L., New Haven, Conn.
 Coberth, Morris E., Baltimore
 Condry, James A., Clarksburg, W. Va.
 Dailey, William P., Carnegie, Pa.
 Demarest, John H., Verona, N. J.
 Donatelli, Francis P., Roseto, Pa.
 Dorsey, Brice M., Baltimore
 Doty, Almon P., Plainfield, N. J.
 Douglas, William W., Bayonne, N. J.
 Duryea, Walter E., Hawthorne, N. J.
 Eagle, James W., Keyser, W. Va.
 Ellor, Arthur B., Bloomfield, N. J.
 Epstein, Raymond, Newark, N. J.
 Erwin, Dick H., Charlotte, N. C.
 Fenn, George W., Waterbury, Conn.
 Fernandez, Marcolina, Porto Rico
 Fitch, Avery W., Noank, Conn.
 Fitzgerald, John, Baltimore
 Font, Juan, Porto Rico
 Fox, Lewis, Norwich, Conn.
 Garverich, Chas. Augustus, Harrisburg, Pa.
 Graffam, Sidney R., Unity, Maine
 Griffin, Harry A., Susquehanna, Pa.
 Grotsky, Theodore, Baltimore
 Hanna, Robert C., Bethel, Conn.
 Herring, Lonnie O., Clinton, N. C.
 Hess, Frederick J., Washington, D. C.
 Hoffman, William P., Hagerstown
 Holdstock, James, Troy, N. Y.
 Hundley, Alwyn, Baltimore
 Hurst, Frank, Winona, W. Va.
 Hurst, Kenneth E., Wilsonberg, W. Va.
 Huth, Ralph L., Follansbee, W. Va.
 Hyson, John M., Hampstead
 Jameson, Joseph A., Hughesville
 Jennatta, Alexander T., Washington, N. C.
 Karas, Henry J., Chicopee, Mass.
 Keefe, James A., Bridgeport, Conn.
 Kinch, Frederick J., Winter Hill, Mass.
 King, Robert J., Williamsport, Pa.
 Kirk, Walter W., Darlington
 Koppel, Isaac H., Baltimore
 Lammers, Walter J., Baltimore
 Lauer, Louis, Newark, N. J.

Zacks, Aaron M., Norfolk, Va.

JUNIOR CLASS

Arkus, Philip, Bayonne, N. J.
 Aronson, Irving J., Hillside, N. J.
 Basehoar, William C., Carlisle, Pa.
 Bishop, Arthur B., West Haven, Conn.
 Blasini, Domingo A., Baltimore
 Blumberg, Sidney H., Newark, N. J.
 Bobinski, Harry J., Stamford, Conn.
 Bochenek, A. Ellis, Elizabeth, N. J.
 Bowers, Norman R., Grafton, W. Va.
 Boyer, Lloyd L., Harrisburg, Pa.

McAnally, Charles B., Madison, N. C.
 McGann, James F., Providence, R. I.
 McGrail, Frank R., New Haven, Conn.
 McKay, Allen P., Raspeburg
 McMullen, Charles A., Steubenville, Ohio
 Mackwiz, Grantly R., Baltimore
 Marrone, Jack, Frederick
 McClain, Preston L., Bar Harbor, Maine
 McLay, Frank P., Essex, Mass.
 Mulcarek, Leon M., Chester, Pa.
 Moore, Oliver S., Globe, N. C.
 Morrison, William H., Burlington, Vt.
 Newberg, Conrad W., New Haven, Conn.
 O'Boyle, John M., Scranton, Pa.
 O'Lone, Walter J., Washington, D. C.
 Oneacre, Claret A., New Martinsville,
 West Virginia
 Orrison, Richard C., Lovettsville, Va.
 Pharr, Joe, Charlotte, N. C.
 Prescher, Adolph R., Plantsville, Conn.
 Prouty, Earle T., Levant, Vt.
 Quirk, Pierce A., Jersey City, N. J.
 Quillen, Joseph E., Ocean City
 Rauch, Albin W., Newark, N. J.
 Rider, Elwood B., Monroe, N. Y.
 Rohrbough, John P., Camden, W. Va.
 Rohrabough, Walter E., Baltimore
 Rose, Jacob N., Philadelphia, Pa.
 Ruane, William A., Scranton, Pa.
 Ruderman, Charles, Newark, N. J.
 Russell, Carl R., Annapolis
 Schilling, Louis R., Carlstadt, N. J.
 Schwartz, Jacob, Newark, N. J.
 Shanklin, Burke J., Union, W. Va.
 Shoof, Richard R., Lexington, N. C.
 Stewart, William A., Bayonne, N. J.
 Trinkle, George H., Shenandoah, Pa.
 Tuttle, Samuel, Revere, Mass.
 Weber, Ernest J., Clifton, N. J.
 White, Ross B., Baltimore
 Whitman, Clifford L., Lyndhurst, N. J.
 Wierman, John A., Dillsburg, Pa.
 Wilde, Samuel H., E. Orange, N. J.
 Wintrup, J. Paul, Wilmington, Del.
 Woolfson, Albert, Baltimore
 Yuckman, Benjamin P., Carteret, N. J.
 Yolken, Henry D., Baltimore

Craig, Gilbert T., Wallingford, Conn.
 Crider, Frank N., Baltimore
 Czajka, Edward, Danbury, Conn.
 Dana, George H., Bornbay, N. Y.
 Deems, Paul A., Baltimore
 De Flora, Romeo J., W. Englewood, N. J.
 De Van, John K., Belleville, N. J.
 Donatelli, Martin L., Roseto, Pa.
 Eggatz, Meyer, Baltimore
 Eigenrauch, Justus H., Jersey City, N. J.
 Falk, William J., Erie, Pa.
 Faucette, John W., Asheville, N. C.
 Fenichel, Joseph, Newark, N. J.
 Fidel, Oscar, Newark, N. J.
 Frank, Samuel M., New Haven, Conn.
 Gale, Ralph C., New Freedom, Pa.
 Gallen, Lester C., New Brunswick, N. J.
 Goldberg, Irvin B., Baltimore
 Goldberg, William M., Bayonne, N. J.
 Gordon, Daniel J., Harrison, N. J.
 Gould, Charles K., Spartanburg, S. C.
 Guerra, Francisca, Porto Rico
 Hagerthy, Lawrence M., Sedgwick, Maine
 Haggerty, Lewis M., Sussex, N. J.
 Hofferma, Alfred M., Spring Valley, N. Y.
 Huggins, Clement E., Trinidad
 Jacobs, Abraham, Newark, N. J.
 Kaplan, Irvin F., Bayonne, N. J.
 Kelsey, Julius J., Reading, Pa.
 Khiberg, Bernard, Newark, N. J.
 Knight, Benjamin M., Winchester, Va.
 Kohler, Ferdinand C., Carlstadt, N. J.
 Lauten, William Brydon, Baltimore
 Lavine, Benjamin, Trenton, N. J.
 Lowenstein, Philip C., Elizabeth, N. J.
 McGrath, Vincent P., New Haven, Conn.
 Machado, John S., New Bedford, Mass.
 Machokas, Pius G., Baltimore
 Marazas, Edward W., Minersville, Pa.

Zerdesky, Clement A., New Phila., Pa.

SOPHOMORE CLASS

Abrams, Allen, Newark, N. J.
 Allanach, Francis G., New London, Conn.
 Aronson, Murray, Bayonne, N. J.
 Belford, Julius E., Bayonne, N. J.
 Bergen, Francis J., Waterbury, Conn.
 Bernstein, Isadore I., Bronx, N. Y.
 Bloom, Samuel, Annapolis
 Bowers, Mark E., Mooresstone, Va.
 Brand, Ralph A., Morgantown, W. Va.
 Brauer, Benjamin, Jersey City, N. J.
 Brice, Oliver Tydings, Annapolis
 Bruskin, Lawrence T., New Brunswick,
 New Jersey
 Buttermore, Charles W., Uniontown, Pa.
 Capone, Joseph A., Providence, R. I.
 Clendenin, George B., Baltimore
 Cranwell, Aloysius J., Union City, N. J.
 Dobbs, Edward C., Springfield, Mass.
 Drake, A. Dudley, Newark, N. J.

Markley, Fred E., Staunton, Va.
 Matney, Andrew G., Grundy, Va.
 McCluer, William A., Fairfield, Va.
 Mehrling, W. Basehoar, Taneytown
 Michniewicz, Joseph A., Bellows Falls, Vt.
 Miller, Clarence P., Tunnelton, W. Va.
 Maxley, Richard T., Wylam, Ala.
 Moore, Stanley G., Hagerstown
 Mott, Mayo B., Baltimore
 Neel, Jerrold W., Baltimore
 Ohlund, Paul Q., New Haven, Conn.
 Orange, Jerome J., Newark, N. J.
 Ostrow, A. Harry, Washington, D. C.
 Pennino, Joseph A., Baltimore
 Rosin, Jack R., Erie, Pa.
 Rizzolo, Jeffrey, Newark, N. J.
 Ruiz, Emilio M., Porto Rico
 Ryan, Edwin M., Bethel, Conn.
 Sachner, Benjamin, Norwich, Conn.
 Schaedel, Carl H., Irvington, N. J.
 Schusterson, Edward H., New York City
 Seeman, Frank C., Perth Amboy, N. J.
 Selens, Walter L., Waterbury, Conn.
 Shapiro, Fred, Carteret, N. J.
 Silverman, David B., Norfolk, Va.
 Sofferman, Irving, Bayonne, N. J.
 Stagg, Horace H., Westwood, N. J.
 Stamp, Frank E., Reading Center, N. Y.
 Stock, Richard J., Gettysburg, Pa.
 Teter, Harry, Thomas, W. Va.
 Tripak, Eugene J., Ridgewood, N. J.
 Toye, Alfred E., Dover, N. J.
 Uihlein, George A., New Haven, Conn.
 Vawter, Ray A., Savage, Md.
 Von Deilen, Arthur W., Morristown, N. J.
 Walker, John F., Baltimore
 Watkins, Sheridan N., N. Braddock, Pa.
 White, Charles C., Winfall, N. C.
 Wright, S. Holt, Fairmont, W. Va.

Eadie, Hugh W., Bloomfield, N. J.
 Ehrlich, Herman, Harrison, N. J.
 Fancher, Morris C., Winsted, Conn.
 Feher, John F., Baltimore
 Fogelman, David D., Paterson, N. J.
 Frankel, Nathaniel L., New Brunswick,
 New Jersey
 Gold, Sidney, Trenton, N. J.
 Gordon, Alan L., Baltimore
 Grace, Raymond D., South Amboy, N. J.
 Greenberg, Herbert H., Annapolis
 Grossman, Leon C., Elizabeth, N. J.
 Harber, Morris I., Asbury Park, N. J.
 Harold, Frederic S., New Haven, Conn.
 Harris, Marion M., Elizabeth City, N. C.
 Heeseman, Gary, Charlotte, N. C.
 Hill, H. Hansford, Charleston, W. Va.
 Holewinski, Frank C., Baltimore
 Holroyd, Trevor, Athens, W. Va.

Johnson, Howard M., Morgantown, W. Va.
 Joyce, Lee A., Baltimore
 Kaplan, Ben, Bayonne, N. J.
 Kaplan, Irving F., Newark, N. J.
 Lane, Hubert W., Hillside, N. J.
 Lawlor, James P., Waterbury, Conn.
 Sazzell, John W., Baltimore
 Levy, Montague S., Newburgh, N. Y.
 Lewis, James F., Parksley, Va.
 Lurie, Julius J., Newark, N. J.
 McCurdy, Clarence R., Cameron, W. Va.
 Mariani, Thomas E., Bayonne, N. J.
 Martindale, John A., Ansted, W. Va.
 Matzkin, Max, Waterbury, Conn.
 McLeod, Thomas D., Montclair, N. J.
 Meyer, Cord, Savannah, Ga.
 Meyer, William G., Baltimore
 Moore, Floyd P. H., Marydel
 Mulrooney, Patrick E., Wilmington, Del.
 Murray, Charles F., New Bedford, Mass.
 O'Connor, Frank J., Norfolk, Va.
 O'Malley, Alfred E., Clinton, Mass.
 Oertel, Carl H., Baltimore
 Page, Ludolphus G., Yanceyville, N. C.
 Patterson, Lloyd W., Cumberland
 Peters, Albertus B., Collingswood, N. J.
 Phillips, Francis W., Providence, R. I.
 Preis, Kyrle W., Baltimore
 Quillen, Frederick C., Rehoboth Beach, Del.
 Quinn, Lawrence S., New Bedford, Mass.
 Richter, Theodore A., Milltown, N. J.

SECOND YEAR FIVE-YEAR COURSE

Arnes, Lawrence G., Carbondale, Pa.
 Braunstein, Benjamin, Passaic, N. J.
 Buckley, Willis F., Marietta, Ohio
 Buday, Albert, Bridgeport, Conn.
 Chanaud, Norman, Wiehawken, N. J.
 Diamond, Isadore, Suffolk, Va.
 Fetter, Luther W., Schaefferstown, Pa.
 Gentry, Curtis H., Spartanburg, S. C.
 Gerstein, Irwin, Brooklyn, N. Y.
 Harlacher, Anthony J., Progress, Pa.
 Hult, Elon A., Ocean Grove, N. J.
 Lapow, Albert, Newark, N. J.
 Leggett, Laurence L., Uhrichsville, Ohio
 McAloose, Carl, McAdoo, Pa.
 McNerney, Francis J., Williamsport, Pa.
 Maguire, John F., Atlantic City, N. J.
 Messor, Michael B., Providence, R. I.
 Miller, Julius, Bayonne, N. J.
 Mogilewsky, Solomon, Brooklyn, N. Y.

Zamecki, Theodore M., Baltimore

FIRST YEAR FIVE-YEAR COURSE

Barnes, Edwin C., Woodbury, N. J.
 Blitzstein, Edward, Atlantic City, N. J.
 Buchbinder, Milton, Hudson, N. J.
 Cohen, Jacob R., Bayonne, N. J.

Roberts, Edwin J., Westernport
 Robin, Milton, New York City
 Robles, Cecilio, Porto Rico
 Rosen, Sol, Baltimore
 Sandberg, Max, Baltimore
 Savitz, Maurice J., Roxbury, Mass.
 Scheidt, Charles H., Baltimore
 Schwarz, William C., Elizabeth, N. J.
 Seeley, Elwood W., Presque Isle, Maine
 Shaffer, Glenn Edgar, Somerset, Pa.
 Shaffer, Samuel W., Greensboro, N. C.
 Sherlock, John V., Plainfield, N. J.
 Shpiner, Harry B., Newark, N. J.
 Silber, Samuel E., Newark, N. J.
 Slavik, Clarence R., Nutley, N. J.
 Smith, James W., Lincolnton, N. C.
 Spitzer, Lynden N., Mt. Jackson, Va.
 Springer, Robert G., Travis, Tex.
 Stang, John T., Jersey City, N. J.
 Stephenson, Henry L., Garysburg, N. C.
 Tarr, Philip A., New York City
 Thomas, Nelson J., Baltimore
 Tierney, Henry E., Clinton, Mass.
 Trundle, William E., Baltimore
 Tulacek, Rudolph, Baltimore
 Weiner, Simon L., Elizabeth, N. J.
 Weisler, Herman L., Uncasville, Conn.
 Weitz, Edward, Brooklyn, N. Y.
 Williams, Norton T., New Haven, Conn.
 Willin, John M. C., Oak Grove, Del.
 Wolf, S. Lloyd, Washington, Pa.

Nelson, Hilbert A., Arverne, N. Y.
 Noll, John Byron, New Haven, Conn.
 Pierce, Carl Rock, Norfolk, Va.
 Reiss, Sam, Brooklyn, N. Y.
 Saunders, Clarence E., Florence, S. C.
 Schein, Irving, Newark, N. J.
 Schwartz, Philip, Newark, N. J.
 Sharp, John R., Carlisle, Pa.
 Sheinblatt, Joseph, Elizabeth, N. J.
 Shupp, Isaac H., Hagerstown
 Slattery, George B., Montclair, N. J.
 Smith, James C., Madison, Va.
 Smyser, Edward R., York, Pa.
 Sobol, Edward A., Hartford, Conn.
 Spitzen, Percival, Baltimore
 Sugg, Merritt N., Southern Pines, N. C.
 Wilkerson, George E., Baltimore
 Wilson, James W., Mount Airy
 Wolf, John W., Carlisle, Pa.

Dillon, Charles S., Jamaica, B. W. I.
 Durso, James, Bayonne, N. J.
 Edwards, Douglas A., Belford, N. J.
 Eskin, Albert C., Newark, N. J.
 Fee, Albert A., Nantucket, Mass.
 Fornarotto, Samuel, Long Branch, N. J.
 Friedman, Max, Bloomfield, Conn.
 Gilfoyle, Alex E., Cortland, N. Y.
 Gill, Russell S., Pikesville
 Greer, James D., Madison, N. J.
 Gunther, Edgar, Fort Howard
 Hay, Edward O., Reading, Pa.
 Hayes, Arthur J., Newark, N. J.
 Heilig, Morris J., Goldsboro, N. C.
 Hensler, Sterling N., Baltimore
 Icaza, Carlos R., Nicaragua
 Jourdan, Harvey P., Darlington
 Kania, Joseph S., New Britain, Conn.
 Kiker, Russell P., Baltimore
 Kohn, Arthur, Bayonne, N. J.
 Lankford, Allan M., Pocomoke
 Levin, Jacob, Bayonne, N. J.
 Marchesi, Joseph J., New Britain, Conn.

Margeson, Clarence E., Clarksburg, W. Va.
 Markley, Harry K., Warfordsburg, Pa.
 Miller, John W., Martinsburg, W. Va.
 Miller, Nathan, Newark, N. J.
 Minahan, Walter R., Sparrows Point
 Nadal, Alfredo M., Mayaguez, P. R.
 Nirenberg, Max, New Rochelle, N. Y.
 Pedlosky, Fred, Irvington, N. J.
 Rafols, Oscar F., Porto Rico
 Reese, Edgar B., Fairview, W. Va.
 Richardson, Daniel H., Halethorpe
 Riley, William L., Oranock, Va.
 Rostovsky, Henry, Baltimore
 Roth, Jacob H., Elizabeth, N. J.
 Santillo, Joseph S., Newark, N. J.
 Shapiro, Emanuel, Newark, N. J.
 Smithson, Charles F., Rocky Mt., N. C.
 Snyder, Elwood S., Orange, N. J.
 Stevens, Charles W., Hickory, N. C.
 Tew, Jasper J., Dunn, N. C.
 Weitzel, Henry M., Carlisle, Pa.
 White, Arthur R., Hancock
 Wojnarowski, L. Edward, Ansonia, Conn.

SPECIAL STUDENT

Cudlipp, Irene M., Baltimore

COLLEGE OF EDUCATION

SENIOR CLASS

Anderson, Mary, Steubenville, Ohio
 Beachley, Amos B., Middletown
 Beatty, William P., College Park
 Boyd, Arthur C., Washington, D. C.
 Burgee, Miel D., Monrovia
 Corkran, Daniel E., Rhodesdale
 Custer, Helen, Friendsville
 Deibert, Roy E., Havre de Grace
 Dorsey, Elise, Ellicott City
 Fettus, George H., Jr., Folcroft, Pa.
 Graham, William C., North East
 Harbaugh, Louise, Washington, D. C.
 Harper, Douglas, Royal Oak
 Howard, William L., Federalsburg
 Hileman, Julia M., Frostburg
 Hill, Robert W., College Park
 Jenkins, Stanleigh E., College Park

Johnson, Mary K., Anacostia
 Jones, Arvin P., New Windsor
 Lehman, Laurence L., Rockville
 Miller, Gladys M., Westernport
 Mills, James B., Delmar
 Moler, Bernice V., Hyattsville
 Muzzey, Alexander A., Homestead, Pa.
 Petrie, Kenneth, Berwyn
 Ryon, H. Gertrude, Waldorf
 Ryon, Naomi C., Waldorf
 Stevens, Myron B., Chevy Chase
 Warner, Grace M., Forest Hill
 Waters, John W., Washington, D. C.
 White (Mrs.), Charles E., College Park
 Whiteford, Roger S., Baltimore
 Woodward, Alberta A., Washington, D. C.
 Wright, Philip A., Federalsburg

JUNIOR CLASS

Archer, Cornelia L., Bel Air
 Beall, Elizabeth M., Chevy Chase
 Bishoff, Roselle, Oakland
 Dale, James P., Whaleyville
 Doerr, Paul L., Washington, D. C.
 Freeny, Frances F., Delmar
 Harris, Elizabeth A., Washington, D. C.
 Houser, Phyllis M., Brentwood
 Howard, Margaret L., Dayton
 Kelly, Jo M., Washington, D. C.
 Kirk, Jane L., Colora
 Kuhnle, Mary E., Westernport
 Leatherman, John D., Thurmont
 Ling, Phyllis C., Peking, China

Llewellyn, Clarence H., Barton
 Long, Marvin C., Williamsport
 Matthews, Henry C., Worton
 Mauck, Buford W., Luray, Va.
 McCoy, Philemon I., Beltsville
 McPartland, John F., Lonaconing
 Morris, Frances F., Sykesville
 Nicholas, Ellwood R., Philadelphia, Pa.
 Price, Virginia S., Washington, D. C.
 Pugh, Charles F., Chevy Chase
 Ream, Edith C., Mt. Lake Park
 Reinmuth, Marguerite C., Hyattsville
 Rives, Fay, Washington, D. C.
 Robinson, Sallie P., Brandywine

Stephens, Thomas H., Washington, D. C.
 Stewart, Viola E., Streett
 Truitt, Emily, Snow Hill

SOPHOMORE CLASS

Beall, Dorothy I., Chevy Chase
 Beggs, Harry W., Westminster
 Bennett, William O., Jr., Princess Anne
 Brumfield, Christine M., Washington, D. C.
 Corkran, Philip, Rhodesdale
 Fowler, Lucille, Owings
 Freeny, Eleanor P., Delmar
 Garber, Elizabeth M., Washington, D. C.
 Herzog, Emily C., Washington, D. C.
 Hislop, Mildred A., Hyattsville
 Kreider, Hazel B., Hyattsville
 Little, Harriet C., Mt. Rainier
 Maisch, Frances J., Hagerstown
 Matthews, Anne R., Worton
 McWilliams, James O., Rhodesdale

Wilson, C. Merrick, Ingleside

FRESHMAN CLASS

Algire, George W., Hampstead
 Ballou, Evelyn F., Washington, D. C.
 Barrett, Marion L., Washington, D. C.
 Chesser, Carolyn S., Pocomoke
 Collette, Edna M., Parkton
 DeMott, Ruth E., East New Market
 Derrick, Burnetta E., Takoma Park
 Dunnigan, M. Regis, Washington, D. C.
 Early, Georgia B., Brandywine
 Groshon, Lloyd E., Graceham
 Harrison, E., Eames, Baltimore
 Howard, Roberta D., Hyattsville
 Karr, Margaret, Bethesda
 Kroll, Wilhelmina D., Washington, D. C.

Woodward, Rebecca L., Washington, D. C.

UNCLASSIFIED

Kemp, Grace V., Baltimore

Mayer, Lenora A., Frostburg
 Rogers, Mary C., College Park

EXTENSION TEACHER-TRAINING COURSES (BALTIMORE) (INDUSTRIAL EDUCATION)

Allen, Douglas
 Anton, Andrew
 Askew, Howard D.
 Ball, Harry C.
 Banahan, Raymond T.
 Balsam, Frank A.
 Blankner, Earl M.
 Bryant, L. J.
 Burgan, C. A.
 Buttner, Martha
 Carter, H. N.
 Cavano, Herbert E.
 Conte, D.
 Cooney, Edward
 Costello, J.
 Crawford, George
 Cripp, Kate
 Cromack, Joseph T.

Wimer, Mildred H., Palmyra, N. J.
 Wolf, Margaret M., Hyattsville
 Wood, May Louise, Boyd

Myers, Warren G., Thurmont
 Parsons, John B., Washington, D. C.
 Peters, B. Anita, Washington, D. C.
 Pierce, Marcia E., Washington, D. C.
 Robey, Carrie E., Beltsville
 Ryon, Audrey C., Waldorf
 Santinie, Antoinette, Burtonsville
 Schumann, Paul A., New Brunswick, N. J.
 Siddall, Blanche, Washington, D. C.
 Siddall, Emilie E., Washington, D. C.
 Siehler, Adele M., Catonsville
 Sturgis, Virginia M., Hyattsville
 Wallace, Marion W., Sudlersville
 Whiteford, Henry S., Baltimore
 Wilson, Arthur M., Pylesville

Furr, B. E.
 Gardner, Harry K.
 Gibson, William F.
 Glassford, John
 Glines, C. V.
 Golder, Harry L.
 Grauling Henry
 Haefner, William F.
 Hambury, Albert W.
 Haslup, DeWilton W.
 Heerd, Charles H.
 Heil, Edward
 Herr, George E.
 Higgins, H. J.
 Hoover, H. W.
 Jennings, E. T.
 Jolly, William H.
 Karl, William A.
 Keglmaier, Ferdinand
 Kendrick, J. A.
 Kerchner, John
 Kirby, Lewis M.
 Klepper, Charles E.
 Kline, Daniel C.
 Krausse, Harry W.
 Lowe, Mrs. E.
 Mendenhall, Veatur D.
 Meyers, George A.
 Miller, H. A.
 Minderlein, A. E.
 Moreton, S.
 Mullen, W.
 Murray, J. P.
 Nohe, John
 Ogle, C. P.
 Ohlem, Henry, Jr.
 Otis, John P.
 Peel, Samuel M.

Ashe, Calvin R.
 Baysmore, Margaret E.
 Briscoe, Joseph C.
 Brown, John A.
 Callis, J. A. B.
 Clark, A. Antoinette
 Clark, Lloyd A.
 Davis, Lee A.
 Echols, David A.
 Ginn, Sylvester W., Jr.
 Hill, John O.
 Jones, Reuben F.
 Kyler, Leighton S.
 Lansey, L. Agnes
 Long, Oscar W.

COLLEGE OF ENGINEERING

SENIOR CLASS

Bewley, William B., Berwyn
 Bittner, John H., Berwyn
 Boteler, Clifford E., Beltsville
 Butler, Charles W., Washington, D. C.

Pohlman, A. G.
 Raabe, Herbert L.
 Rawls, Leroy
 Records, E. T.
 Regendahl, L. F.
 Reisinger, W. P.
 Rogers, Annie
 Rohleder, Marie
 Sealar, Williard
 Sherman, Lawrence
 Shouls, J. T.
 Standiford, Daniel P.
 Stang, Joseph
 Stein, Edwin
 Stephens, M. S.
 Stierhoff, G. C.
 Summers, Roland M.
 Suter, John
 Tebo, Kenneth P.
 Todd, Mrs. V.
 Townsend, H. C.
 Townsend, Howard E.
 Tyrell, Raymond
 Wagner, W. L.
 Walters, A. P.
 Walters, J. T.
 Walter, Raymond
 Watkins, Robert S.
 White, Clinton E. W.
 White, Gertrude C.
 Wholey, Clara E.
 Wiegand, C.
 Wiegman, Elgert L.
 Williams, G. A.
 Young, Bernard A.
 Zeigleir, N. R.
 Zieffe, Howard E.
 Zinser, L. J.

COLORED TEACHERS

Martin, James G., Jr.
 Moore, James E.
 Moore, Levi V.
 Moulton, Herbert C.
 Reavis, Bessie D.
 Smith, Guy W.
 Taylor, Mary
 Traynham, Hezekiah
 Turner, Walter T.
 Warsoma, Martha B.
 Washington, Howard E.
 Williams, Leon W.
 Wright, Agnes B.
 Wright, Eloise
 Wright, William B.

Coakley, Forrest, Havre de Grace
 Coblentz, Oscar B., Jr., Catonsville
 Cooling, William C., Chesapeake City
 Davis, Robert B., Baltimore

Easter, Henry J., Baltimore
 Elgin, Wade H., Jr., Washington, D. C.
 England, Adelbert G., Raspeburg
 Finch, Harold W., Washington, D. C.
 Funk, Creston E., Hagerstown
 Garber, Harry F., Washington, D. C.
 Glover, Nathan D., Mt. Airy
 Hassler, Howard E., Washington, D. C.
 Hickox, Malcolm, Washington, D. C.
 Korff, William F., Baltimore
 Lang, John C., Pocomoke
 LeSueur, Benjamin W., Baltimore
 Lynn, Roland A., Smithsburg
 Marks, Edward B., Washington, D. C.
 Morrison, George W., Port Deposit

White, Wilbur M., Princess Anne

JUNIOR CLASS

Baird, Lester P., Washington, D. C.
 Brady, Leslie R., Laurel
 Bruehl, William O., Centreville
 Caldwell, Charles H., Baltimore
 Cleveland, James Y., Washington, D. C.
 Daly, John K., Washington, D. C.
 Davidson, James S., Jr., Washington, D. C.
 Diener, Alfred F., Washington, D. C.
 Duvall, John C., Washington, D. C.
 Dynes, William A., Chevy Chase
 Emerson, Robert B., Washington, D. C.
 Fletequal, Harry J., Washington, D. C.
 Foehl, Edward A., Washington, D. C.
 Garrett, Franklin T., Washington, D. C.
 Greenwood, Arthur W., Washington, D. C.
 Hampton, Horace R., Chevy Chase
 Hitch, Robert A., Washington, D. C.
 Iglehart, William H., Washington, D. C.
 Loux, John H., Hurlock

Wooster, Mallery O., Berwyn

SOPHOMORE CLASS

Barto, John C., Cordova
 Basford, Alvin, Washington, D. C.
 Bean, Robert C., Washington, D. C.
 Beauchamp, Earl, Westover
 Blakeslee, Raymond D., Washington, D. C.
 Bock, J. Delmar, Mt. Rainier
 Bomberger, Lawrence, College Park
 Bowman, Julian U., Germantown
 Bryan, William L., Washington, D. C.
 Cashell, Harry D., Washington, D. C.
 Clausell, Carlos A., Suarez No. 30,
 Mexico, D. F.
 Colburn, Raymond, Havre de Grace
 Dauber, Rudolph W., Washington, D. C.
 Dennison, William E., Washington, D. C.
 Dodd, Arthur E., Salisbury
 Dyer, Benjamin, Washington, D. C.
 Elliott, William H., Oxford
 Epple, Richard J., Ridgewood, N. J.

Murray, Herbert S., Washington, D. C.
 Ninas, George A., Jr., Gaithersburg
 Peverill, William L., Washington, D. C.
 Rohrbaugh, Robert M., Mt. Rainier
 Runkles, Oliver W., Mt. Airy
 Schrader, Floyd F., College Park
 Smither, Herbert A., Cumberland
 Spence, Kenneth F., Hancock
 Stevens, Raymond L., Hyattsville
 Streett, Wilbur A., Govans
 Thomen, Harold O., Cleveland, Ohio
 Trimble, William R., Washington, D. C.
 Triplett, Paul W., Cumberland
 Weber, Charles S., Oakland
 Wenner, Edward M., Point of Rocks

Lowe, Delbert B., Mt. Rainier
 Mackintosh, James T., Washington, D. C.
 Maloney, Herndon L., Washington, D. C.
 Marseglia, Milton, Washington, D. C.
 Mathews, John A., Cumberland
 Miller, Norman E., Bethesda
 Miller, Robert S., Cumberland
 Norris, Elick E., Washington, D. C.
 Paige, Edwin C., Linthicum
 Palmer, Robert L., Landover
 Rader, Oris L., Washington, D. C.
 Rehberger, Elmer H., Baltimore
 Richard, George R., Goldsboro
 Schaefer, Alfred H., Baltimore
 Shelton, Charles L., Chevy Chase
 Strohman, Joseph W., Washington, D. C.
 Thomas, Lewis W., Washington, D. C.
 Wells, Harry W., Chevy Chase
 Welsh, Robert R., Washington, D. C.

Price, Milton M., Washington, D. C.
 Ramsay, Preston W., Delta, Pa.
 Roeder, John H., Cumberland
 Russell, William I., Washington, D. C.
 Sangston, Howard E., Washington, D. C.
 Schofield, William C., Washington, D. C.
 Shenck, George A., Landisville, Pa.
 Slack, John C., Washington, D. C.

Wilson, William S., Salisbury

FRESHMAN CLASS

Ahalt, Chauncey A., Middletown
 Amos, Henry E., Kensington
 Armacost, William T., Hampstead
 Ayers, Robert R., Silver Springs
 Bair, Walter A., Hancock
 Barnes, Allen W., Salisbury
 Behmyer, Wilbur L., Baltimore
 Betts, James W., Salisbury
 Bishop, Charles B., Washington, D. C.
 Boublitz, Harry D., Baltimore
 Cameron, James N., North East
 Carozza, Ernest M., Baltimore
 Cathell, Dale P., Berlin
 Cerrito, Anthony F., Baltimore
 Claflin, Frederick F., College Park
 Clay, Ambrose W. W., College Park
 Connaughton, Owen H., Washington, D. C.
 Covington, Winfred W., St. Michael's
 Croushore, Robert S., Ruffs Dale, Pa.
 Dabson, Thomas P., Greensboro
 Dean, Hugh A., Frederick
 DeMarr, James D., Mt. Rainier
 Dodson, Charles R., Washington, D. C.
 Falkenstine, Niles G., Mt. Lake Park
 Petty, Howard T., Laurel
 Fleischmann, William E., Baltimore
 Geddes, Bruce B., Washington, D. C.
 Gifford, William R., Washington, D. C.
 Gordon, Samuel, Washington, D. C.
 Hanback, Bryant L., Washington, D. C.
 Harper, Luther M., Cumberland
 Higgins, Wilfred E., Gaithersburg
 Hoffman, Carl O., Washington, D. C.
 Hoffman, Charles G., Eastport
 Howell, Elbert J., Washington, D. C.
 Jacques, Pearre D., Smithsburg
 James, Carroll S., Frederick
 Jarvis, Harry A., Berlin
 Jarvis, Kendall P., Berlin
 Jerardi, Joseph V., Baltimore
 Jett, Clifton H., Washington, D. C.
 Johnson, Raymond W., Washington, D. C.
 Kennedy, Joseph C., Washington, D. C.
 Kesecker, Kenneth S., Washington, D. C.
 Kline, Donald L., Washington, D. C.
 Koons, Charles V., Washington, D. C.
 Lankford, Howard J., Pocomoke

Stephens, Francis D., Washington, D. C.
 Van Allen, Ralph C., Washington, D. C.
 Vierkorn, Jack, Washington, D. C.
 Wallett, Fred D., Havre de Grace
 Weirich, Alfred F., Hyattsville
 Wheeler, Henry E., Bel Air
 Whitlock, Charles F., Baltimore
 Willmuth, Charles A., Kenilworth, D. C.

Leatherbury, William T., Shady Side
 Lee, Thomas G., Washington, D. C.
 Leister, Edgar N., Hampstead
 Letvin, Samuel, Washington, D. C.
 Lininger, Floyd R., Westernport
 Lippard, Foster E., Washington, D. C.
 Lloyd, Madison E., Cockeysville
 Lockridge, Robert W., Edmonston
 Lombard, Herman, Washington, D. C.
 McCoy, John C., Bradford, Pa.
 Mitchell, Allen S., Washington, D. C.
 Molter, Nelson J., Severna Park
 Nevius, J. Donald, Branchville
 Nowell, William P., Washington, D. C.
 O'Neill, John T., Washington, D. C.
 Penn, Harry W., Berwyn
 Perry, John W., Washington, D. C.
 Peters, Alfred W., Jr., Berlin
 Phipps, George, Washington, D. C.
 Quinn, Robert F., Washington, D. C.
 Reichard, Donald S., Washington, D. C.
 Reynolds, Charles B., Jr., Cleveland, Ohio
 Ripple, John F., Cheltenham
 Roberts, Eugene J., Washington, D. C.
 Romberger, Ira P., Jr., Harrisburg, Pa.
 Sanders, William L., Havre de Grace
 Schramm, Harry B., Cumberland
 Scott, William H., Ocean City
 Sehorn, Hale F., Washington, D. C.
 Shank, William L., Mt. Sterling, Pa.
 Smith, George L., Ruffs Dale, Pa.
 Smith, Robert H., Washington, D. C.
 Snyder, Robert O., Randallstown
 Spence, David R., Hancock
 Stacy, Harry A., Jr., Takoma Park
 Stephonoff, Dimitrie
 Stevenson, John C., Ridgely
 Suter, Jesse C., Jr., Takoma Park
 Talbot, Dorrance, Wortenclyke, N. J.
 Tansill, Roy B., Baltimore
 Taylor, Norman L., Salisbury
 Thomas, Joseph C., Salisbury
 Tinsley, Garland S., Washington, D. C.
 Tobias, George O., Hancock
 Tompkins, Francis M., Washington, D. C.
 Troxell, Harry S., Northampton, Pa.
 Vivell, Herbert G., Baltimore

Vogel, Leonard J., Washington, D. C.
 Walters, Francis P., Cumberland
 Ward, David J., Jr., Salisbury

Weitzel, William C., Washington, D. C.
 White, Richard M., Washington, D. C.
 Young, Melvin, Ballston, Va.

UNCLASSIFIED

Van Norman, Stefan D., Washington, D. C.

Crothers, Austin L., Elkton

EXTENSION CLASSES IN MINING

BARTON CLASS

Arnold, Harmon
 Ashly, R. M.
 Athey, John
 Barnard, William
 Bradley, John
 Brennan, E. R.
 Brookes, Lloyd
 Chappell, William
 Crowe, George
 Darrow, James E.
 Davis, Harrison
 Dawson, James
 Duckworth, C. J.

Duckwroth, Simeon
 Evans, Luther
 Frenzel, Albert
 Griffith, Curtis
 Guy, J. P.
 Harris, T. A.
 Heffner, George
 Hyde, Carson
 Johnson, Oscar W.
 Kallmyer, Walter
 Kyle, Charles
 McDonald, James
 McDonald, Kinsley

Penman, Andrew
 Rankin, William
 Robertson, Joseph
 Ross, Russell
 Russell, Ellsworth
 Sherwood, B. E.
 Shuhart, Joseph
 Stevenson, Piney
 Symons, Charles E.
 Thomas, Carson
 Todd, Robert K.
 Wallace, John

FINZEL CLASS

Baker, Arthur
 Baker, Charles
 Baker, Edward
 Baker, Elcede
 Baker, James
 Baker, Lester
 Baker, William
 Bolden, Arthur
 Brown, Ralph
 Burdock, Arch
 Burdock, Marshall
 Caton, Clifford
 Clark, Albert
 Clark, Edward
 Clark, John
 Crowe, Ellis
 Crowe, Roy

Drees, Henry
 Drees, Albert
 Eisler, Samuel
 Finzel, George
 Finzel, Thomas
 Klink, Calvert
 Knepp, Henry
 Lancaster, Vernon
 McKenzie, Carl
 McKenzie, Clarence
 McKenzie, Clem
 McKenzie, Fred
 McKenzie, George
 McKenzie, Hubert
 McKenzie, James
 McKenzie, Jesse
 McKenzie, Murrell

McKenzie, Oren
 McKenzie, Patrick
 McKenzie, Robert
 McKenzie, Thomas
 Minnicks, Arvel
 Raley, Edward
 Raley, Patrick
 Snyder, Lawrence
 Snyder, Lester
 Wagoner, Howard
 Warner, Albert
 Warner, Cecil
 Warner, Jame
 Warner, John
 Wilhelm, Wesley
 Wolfe, Arch

FROSTBURG CLASS

Anthony, Gershon
 Cardial, Martin
 Carter, Frank
 Carter, Robert
 Casey, John L.
 Close, James
 Dennison, Allen
 Donahue, William
 Dye, Herbert
 Eisel, William
 Emerson, David
 Ewing, Robert
 Festermann, Walter
 Finzel, Joseph
 Fletcher, Clarence
 Glotfelty, Robert
 Hartig, John

Hartig, Philip
 Haverstick, H. Graff
 Hawkins, Richard
 Hitchins, Grant
 Hitchins, Harry
 Huber, Oscar
 James, J. A.
 Kallmyer, Harold
 Kamanf, Emil
 Komatz, Antone
 Lewis, Edward
 Lewis, Thomas F.
 Martin, Joseph G.
 McKerman, Thomas
 Meagher, Victor
 Powell, Thomas
 Powers, Clarence

Powers, Lawrence
 Raley, Clarence
 Rephorn, William
 Richardson, George
 Rowe, Clyde J.
 Seifarth, Andrew
 Stevens, Eugene
 Taylor, George
 Tennant, Georges
 Thomas, W. H. R.
 Tighe, Patrick
 Tepper, Walter
 Walker, Samuel
 Weisenborn, J. A.
 Wellings, George
 Wolfe, Charles

Beckman, C. M.
Cuppet, Burrell
Cuppet, Eugene
Dice, E. P.
Friend, Ernest
Gibbs, Roy
Heller, L. M.
Hoopengardner, G.
Iman, Walter

KEMPTON CLASS

King, Arthur
King, Grant
King, Jack
Lantz, A. L.
Lantz, Cecil
Luzier, Carl
Morris, Michael
Nutter, Harry
Reed, Charles

Rosier, Wesley
Seymour, William
Singleton, N. B.
Watring, Allan
Welsh, Lester
Wiegratz, August
Wolfe, Oscar

LONACONING CLASS

Beeman, Fred
Beeman, Harry
Duckworth, Simeon
Dunn, Lawrence
Foote, Felix
Jones, W. O.

Laird, Clarkson
Martin, J. G.
McFarlane, James
McVickar, George
Merrbach, Robert
Miller, Alonzo P.

Moffett, Richard
Morgan, Marcellus
Muir, Edward
Rankin, William
Smith, John P.
Stewart, Arch

MT. SAVAGE CLASS

Boore, Norman
Brailer, Joseph
Carter, Edward
Carter, John
Crowe, Edward
Deffenbaugh, Albert
Finzel, Joseph
Frankenberry, James
Grady, Charles

Henaghan, John
Jenkins, Joseph
Jenkins, Leroy
Lancaster, Edgar
Lowndes, James
Machin, Gilbert
Machin, Thomas
Martin, Lewis
Means, Sheridan

Rizer, Robert
Snyder, Frank
Snyder, Irvin
Snyder, Marshall
Snyder, William
Stowell, Edward
Williams, Daniel
Williams, William D.

GRADUATE SCHOOL

Balmert, Richard M., Baltimore
Barron, Edward M., Hyattsville
Bellinger, Frederick, Baltimore
Bennett, Benjamin H., Washington, D. C.
Block, Harry W., Maplewood, Mass.
Bowman, John J., Washington, D. C.
Brewer, Margaret G., College Park
Brookens, Perley F., Hyattsville
Burdette, R. C., Washington, D. C.
Cadisch, Gordon F., New York, N. Y.
Carter, Ray M., Baltimore
Clapp, Houghton G., Brentwood
Clement, Eugenia W., Washington, D. C.
Cooke, Giles B., Gloucester, Va.
Darkis, F. R., College Park
Davis, Charles C., Baltimore
Dent, W. Gilbert, Jr., Clinton
Dillman, Arthur C., Washington, D. C.
Ehrenfeld, Day, Edgewood Arsenal
Engle, Ruth B., Frostburg
Ensor, Huldah E., Sparks
Faber, John E., Washington, D. C.
Farley, Horace B., Albion, Mich.
Feild, Frank A., Baltimore
Flenner, Albert L., College Park
Flenner, Winifred W., College Park
Fogg, George W., Bangor, Maine
Ford, Edwin L., Washington, D. C.
Forrest, Luke A., Leslie, Ga.
Gibson, Arthur M., Baltimore

Goshorn, John C., Baltimore
Haines, George, Hyattsville
Haller, Mark H., Washington, D. C.
Hambright, William A., Bel Air
Harden, Wilton C., Catonsville
Hock, Reuben L., Baltimore
Holland, Arthur H., Berwyn
Holmes, George K., Washington, D. C.
Hoopes, Joseph D., Bel Air
Horn, Millard J., Washington, D. C.
Houghland, Geoffrey V., College Park
Hsu, Fu C., Peking, China
Hudnut, Ruth A., Washington, D. C.
Huffington, Paul E., Allen
Hunter, Herman A., Clinton, S. C.
Jacobs, Carl B., Linthicum Heights
Johnson, William L., Baltimore
Jones, Charles A., Clay Center, Kan.
Kerr, William L., Ottawa, Canada
Knight, Paul, Frederick, Ill.
Lagasse, Felix, Newark, Del.
Leatherman, Martin, Lodi, Ohio
Lieberman, Samuel, Bronx, N. Y.
Ling, Philip P., Peking, China
Marshall, Housden L., Washington, D. C.
Mason, A., Freeman, Pasadena, Cal.
McCaffrey, Patrick J., Ammendale
Mecredy, James R., Baltimore
Melroy, Malcolm B., Washington, D. C.

Mook, Paul V., Saegertown, Pa.
Moyer, Andrew J., Crawfordsville, Ind.
Munkwitz, Richard C., Edgar, Wis.
Newcomb, Eric M., Washington, D. C.
Ordeman, Daniel T., College Park
Parsons, Arthur C., Ormsby, Pa.
Peltier, Paul X., Spencer, Mass.
Poelma, L. J., College Park
Pope, Merritt N., Falls Church, Va.
Pyles, Joseph T., Jr., Frederick
Reinmuth, Otto P. H., Hyattsville
Rice, John E., Frederick
Rich, William R., Baltimore
Rothgeb, Russell G., College Park
Rudel, Harry W., Baltimore
Savage, Mary E., Rockville
Scruton, Herbert A., Baltimore
Shepard, Harold H., Hyattsville
Shipley, Alma D., Westminster
Smith, Charles L., Covin, Ala.

Smith, Wallace V., Riverdale
Spiegelberg, Carl H., Kennewick, Wash.
Stamp, Adele H., College Park
Straka, Robert P., Homestead, Pa.
Straughn, William D., Baltimore
Stuart, Leander S., Pepperell, Mass.
Supplee, W. Carleton, Washington, D. C.
Taylor, Ritchie P., Baltimore
Upshall, W. Harold, Ontario, Canada
Vanden Bosche, E. G., Detroit, Mich.
Walker, Ernest A., Mount Airy
Walter, Henry M., Washington, D. C.
Welsh, Mark F., College Park
Whaley, M. Stewart, Washington, D. C.
Wheaton, I. Evan, Greenwich, N. J.
Whitehouse, Wm. E., Manchester, N. H.
Whitney, Frank C., Baltimore
Wolf, Edgar F., Baltimore
Worthington, Katharine K., Baltimore
Yoder, Roy C., Lancaster, Ohio

COLLEGE OF HOME ECONOMICS

SENIOR CLASS

Beyerle, Helen G., Baltimore
Blandford, Josephine M., College Park
Calbreath, Ellen F., Washington, D. C.
Chesnut, Gertrude, Hyattsville
Grove, M. Ethel, Hagerstown
Keiser, Ellen Jane, Washington, D. C.
Mankin, Jane L., Washington, D. C.
McRae, Ruth H., Riverdale
Muncaster, Jessie F., Rockville
Orton, H. Alberta, Takoma Park, D. C.
Ripple, Grace A., Cheltenham

JUNIOR CLASS

Burdick, Alice L., Baltimore
Edmonds, Olive, Rockville
Godbold, Josephine, Cabin John
Gunby, Frances L., Salisbury
Williams, Ruth T., Lanham
York, Mary S., College Park

SOPHOMORE CLASS

Appleman, Katharine R., College Park
Bonnet, Alice G., Washington, D. C.
Bourke, Mary L., Washington, D. C.
Edmonds, Mena R., Washington, D. C.
Harbaugh, Phyllis, Washington, D. C.
Herzog, Aline E., Washington, D. C.
Hoffman, Anne H., Baldwin
McMinimy, Margaret M., Washington, D. C.
Moore, Evelyn J., Laurel
Morris, Naomi M., Salisbury
Price, Anna L., Queenstown
Norton, Frances L., Hyattsville
Zilch, Helen J., Cumberland

FRESHMAN CLASS

Balch, Bernice, Washington, D. C.
Bewick, Isabel, Cumberland
Bewley, S. Marguerite, Berwyn
Creager, Margaret P., Thurmont
Freseman, Dorathea, Baltimore
Lee, Grace, Darlington
Lewis, Maude E., Washington, D. C.
Smith, Voncile, Riverdale
Lighter, M. Grace, Middletown
Mackie, Anne E., North East
Nicklas, Phyllis A., Baltimore
Pope, Cora L., Baltimore
Pressley, Margaret S., Elkridge
Price, Frances E., Darlington
Prince, Margaret V., Ilchester

UNCLASSIFIED

Neal, Fora D., College Park

SCHOOL OF LAW

SENIOR CLASS

Abramson, Leon, Baltimore
 Adler, Bernard B., Baltimore
 Albert, Morris, Baltimore
 Alnutt, Robert W., Dawsonville
 Applefeld, Leon, Baltimore
 Archer, James G., Bel Air
 Baldwin, Rignal W., Baltimore
 Bartels, William N., Baltimore
 Becker, Benjamin S., Baltimore
 Becker, Edward D., Baltimore
 Blalock, Hubert, Baltimore
 Blickinstaff, Harold E., Boonsboro
 Bond, Earle I., Baltimore
 Brannan, Edward J., Baltimore
 Brown, James R., Baltimore
 Bryan, Richard M., Baltimore
 Burke, Henry G., Baltimore
 Burns, John F., Baltimore
 Caplan, Reuben, Baltimore
 Carmody, Ivan M., Baltimore
 Cohan, Hyman I., Baltimore
 Cohen, Raymond, Baltimore
 Croker, John H., Baltimore
 Darley, George L., Baltimore
 DiCenzo, George G., New Haven, Conn.
 Dorsey, Charles A., Pikesville
 Dounes, James D., Baltimore
 Doyle, James, Baltimore
 Duckett, Oden B., Annapolis
 Everett, John W., Centerville
 Fasano, Arnold, New Haven, Conn.
 Ferguson, William K., Baltimore
 Flautt, Ernest G., Baltimore
 Forestell, Frank W., Baltimore
 Freeman, Aaron, Baltimore
 Freeman, Ellis, Baltimore
 Friedman, Max, Baltimore
 Fribush, Abe, Baltimore
 Gerson, Lillian, Baltimore
 Ginsberg, Hyman, Baltimore
 Ginsburg, Herman R., Baltimore
 Goldstein, Aaron I., Baltimore
 Goldstein, C. Ellis, Baltimore
 Goldstein, Clarence M., Baltimore
 Goner, Bessie, Baltimore
 Goodman, Max, Baltimore
 Gou'd, Justinus, Baltimore
 Green, Harry J., Baltimore
 Greenberg, Rosalind, Baltimore
 Greydon, Lucie M., Baltimore
 Gutmann, Charles H., Baltimore
 Hackerman, Milton M., Baltimore
 Hall, Dorothy M., Baltimore
 Handy, Sydney S., Baltimore
 Hartman, Charles C., Baltimore
 Hillman, Sydney E., Baltimore

Hipsley, Stanley P., Baltimore
 Hudgins, Charles H., Baltimore
 Hurwitz, Sylvan, Baltimore
 Jenifer, Thomas M., Baltimore
 Johannsen, Mildred, Baltimore
 Johns, Thomas M., Baltimore
 Kaufman, Harry D., Baltimore
 Ken, Nelson Reede, Baltimore
 King, Joseph A., Baltimore
 Klein, Daniel E., Baltimore
 Lazarus, Sam, Baltimore
 Lebowitz, Manuel, Baltimore
 Levin, Sigmund, Baltimore
 Levin, Solomon B., Baltimore
 Levy, Walter J., Baltimore
 Leyko, James W., Baltimore
 Lipnick, David A., Baltimore
 Lyden, Edward, Baltimore
 Lyon, Robert M., Baltimore
 MacGregor, Robert W., Baltimore
 Maddrix, F. Kirk, Baltimore
 Mahr, Abraham, Baltimore
 Malin, Harry L., Baltimore
 Markoff, David J., Baltimore
 McMahon, Daniel A., Baltimore
 Miller, Harry, Baltimore
 Moore, Herbert C., Baltimore
 Moriarty, Edward E., Baltimore
 Morrison, Harry H., Baltimore
 Mund, Alfred S., Baltimore
 Murphy, Edwin J., Baltimore
 Nasdor, Harry L., Baltimore
 Ningard, Paul S., Baltimore
 Norris, William I., Baltimore
 O'Ferrall, Alfred J., Baltimore
 Ohen, Mickey, Baltimore
 O'Shea, John A., Baltimore
 Panetti, Edwin, Baltimore
 Parisei, Henry, Baltimore
 Pegram, Francis E., Baltimore
 Perkins, Eben F., Baltimore
 Phillips, Jesse C., Randallstown
 Phipps, Elmer E., Baltimore
 Pinerman, Eli H., Baltimore
 Poffenberger, Leonard F., Hagerstown
 Richards, Granville P., Rising Sun
 Roman, Isadore, Baltimore
 Rosenberg, Jennie, Baltimore
 Rosenstein, Jesse A., Baltimore
 Sacks, Joseph, Baltimore
 Sawnitz, David S., Baltimore
 Sapiro, Samuel Sylvan, Baltimore
 Schmidt, Edward H., Baltimore
 Shapiro, Morton, Baltimore
 Shea, Raymond M., Naugatuck, Conn.
 Shuman, Charles L., Baltimore

Siegel, Jeanette R., Baltimore
 Silver, Harry, Baltimore
 Sirkin, Sidney H., Baltimore
 Smalkin, Harry R., Baltimore
 Smith, Bernard R., Baltimore
 Smith, Frederick C., Baltimore
 Smith, William M., Baltimore
 Solled, Isadore I., Baltimore
 Solomon, Charles L., Baltimore
 Stine, Isaac F., Winchester, Va.
 Stone, Amelia M., Baltimore
 Swartz, James M., Baltimore

Terlitzky, Isador B., Baltimore
 Tietzer, Morris, Baltimore
 Unger, Benjamin, Baltimore
 Vickers, Powell, Baltimore
 Weaver, Alva P., Baltimore
 Wegner, Roland M., Towson
 Weinstein, Henry A., Baltimore
 Werner, Samuel, Baltimore
 Wilson, William S., Baltimore
 Wise, Milton, Baltimore
 Wolf, Edwin J., Baltimore
 Wright, Francis J., Manchester, Conn.

SECOND YEAR EVENING CLASS

Albrecht, Clinton W., Baltimore
 Altman, Samuel B., Baltimore
 Ashman, Harry, Baltimore
 Berman, Max L., Baltimore
 Benjamin, James L., Salisbury
 Bernstein, Charles S., Baltimore
 Bien, David W., Baltimore
 Blum, Jacob, Baltimore
 Bollinger, William D., Glyndon
 Brown, Thomas C., Baltimore
 Bruce, Robert M., Cumberland
 Budnick, Isadore, Baltimore
 Cardin, Myer M., Baltimore
 Chambers, Robert, Baltimore
 Chayt, Sidney, Baltimore
 Christian, Thomas L., Green Haven
 Clautice, Joseph M., Baltimore
 Cobb, George, Baltimore
 Cohen, Morton J., Baltimore
 Cohn, Phillip, Baltimore
 Cooper, Benjamin B., Baltimore
 Cromwell, E. Stanley, Baltimore
 Danziger, Lewis, Baltimore
 Davison, Irvin, Baltimore
 Deponai, John M., Baltimore
 Dillingham, Conway C., Baltimore
 Dorsey, Hammond P., Carroll Station
 Doughney, Thomas, Baltimore
 Doyle, James L., Baltimore
 Dumler, John O., Baltimore
 Entrekin, James W., Baltimore
 Epstein, Samuel, Baltimore
 Eser, Walter J., Baltimore
 Farber, Samuel S., Baltimore
 Fell, Ellis M., Baltimore
 Fenton, Foster T., Baltimore
 Field, Benjamin W., Baltimore
 Fletcher, Paul M., Cumberland
 Flynn, Paul J., Baltimore
 Fossett, Frank M., Baltimore
 Freed, Irvin, Baltimore
 Fringer, John H., Pikesville
 Gerson, Harry J., Frostburg
 Ginsberg, Isidore, Baltimore
 Goldring, Mavis A., Baltimore

Goldstein, Maurice, Baltimore
 Gorfine, Charles, Baltimore
 Grafflin, Frank W., Baltimore
 Graves, John F., Baltimore
 Greenberg, Eugene L., Baltimore
 Gross, Casper J., Baltimore
 Hammel, Eugene J., Raspeburg Station
 Hannan, John P., Govans
 Hardesty, John W., Baltimore
 Harris, Solomon H., Baltimore
 Hart, William S., Baltimore
 Harvey, James E., Baltimore
 Herzfeld, Bernard H., Baltimore
 Hindin, Sidney B., Baltimore
 Hoffman, Hollen B., Baltimore
 Horwitz, Milton G., Baltimore
 Heward, Benjamin C., Baltimore
 Ireton, John F., Baltimore
 Jacobson, Bernard, Baltimore
 Johnson, John T., Baltimore
 Katz, Harry L., Baltimore
 Kessler, John S., Baltimore
 Kitko, Joseph E., Ranney, Pa.
 Kloze, Alexander, Baltimore
 Knapp, John P., Baltimore
 Leithiser, William D., Havre de Grace
 Levin, Abraham, Baltimore
 Levin, Louis, Baltimore
 Libauer, Leo, Baltimore
 Libauer, Meyer, Baltimore
 Lion, S. John, Baltimore
 Lochboehler, George L., Highlandtown
 Lyons, Charles C., Baltimore
 Mahony, Mortimer M., Baltimore
 Malloy, John J., New Orleans, La.
 Margolis, A. L., Baltimore
 Mason, John S., Baltimore
 McKay, Douglass A., Baltimore
 Medinger, Irwin D., Baltimore
 Menchine, William A., Baltimore
 Meren, Abraham, Baltimore
 Meurer, Henry W., Baltimore
 Meyer, Elbert J., Baltimore
 Meyer, Leo John, Baltimore
 Miller, Boniface A., Baltimore

Miller, Clarence L., Baltimore
 Miller, Herman, Baltimore
 Millhouser, Henry M., Baltimore
 Moss, Albert, Baltimore
 Nachman, Joseph I., Baltimore
 Nachman, William, Newport News, Va.
 Nordenholz, Sophie K., Baltimore
 O'Connor, Robert J., Baltimore
 O'Dell, Arthur E., Randallstown
 Papa, Samuel, Baltimore
 Pekar, Alfred L., Baltimore
 Petrick, Louis E., Overlea
 Pierson, Edward D., Baltimore
 Posner, Nathan, Baltimore
 Price, Jay S., Snow Hill
 Rades, Vincent T., Baltimore
 Reiblich, George K., Baltimore
 Reichett, Arthur C. J., Baltimore
 Renshaw, James G., Boonsboro
 Rosenthal, Albert N., Baltimore
 Rosenthal, Joseph, Baltimore
 Rubenstein, Leon A., Baltimore
 Rutherford, John O., Baltimore
 Sachs, Harry M., Baltimore
 Samuelson, Walter, Baltimore
 Sanders, John A., Baltimore
 Scherr, Jerome G., Baltimore
 Sherwood, William D., Baltimore

Shipper, James A., Martinsburg, W. Va.
 Shriver, George McL., Pikesville
 Siegall, Irvin, Baltimore
 Siegal, Maurice T., Baltimore
 Silverman, Harvey, Baltimore
 Skap, Jacob, Baltimore
 Slatkin, Mortimer M., Baltimore
 Sollero, James R., Lusby
 Sopher, Maurice, Baltimore
 Sterling, Norris P., Crisfield
 Sterling, Thomas K. N., Baltimore
 Stinchcomb, Charles J., Baltimore
 Stulman, Leonard E., Baltimore
 Thaiss, J. Nelson, Baltimore
 Thomas, A. Chase, Baltimore
 Vail, James A., Baltimore
 Vangsness, George B., Brooklyn
 Wachter, Samuel S., Baltimore
 Wells, Walter H., Baltimore
 White, John J., Baltimore
 Willey, Lorain W., Landsdowne
 Willhide, Paul A., Baltimore
 Wilson, Bruce C., Funkstown
 Wilson, Edward C., Darlington
 Wilson, Emory J., Baltimore
 Wyatt, Arthur R., Owings Mills
 Young, Kendall A., Baltimore
 Zenitz, Oscar W., Baltimore

FRESHMAN EVENING CLASS

Allers, Harry W., Baltimore
 Atwood, Horace B., Baltimore
 Barton, Walter A., Baltimore
 Biddison, John S., Raspeburg
 Boone, Robert G., Baltimore
 Bornstein, Morris, Baltimore
 Branner, Cecil G., Baltimore
 Brian, George T., Baltimore
 Brothers, Paul A., Baltimore
 Buckmaster, Everett L., Baltimore
 Budnick, Merrell I., Baltimore
 Caffee, John S., Baltimore
 Cecil, Harold H., Highland
 Chambers, Robert E., Baltimore
 Cochran, John A., Baltimore
 Cohen, J. Samuel, Baltimore
 Cook, Noel S., Frostburg
 Coplan, Fannye A., Baltimore
 Coughlin, Thomas W., Baltimore
 Eichhorn, William H., Baltimore
 Engelke, Edmund H., Eastport
 Feldman, William T., Baltimore
 Ferciot, Thomas N., Baltimore
 Frames, Parker W., Govans
 Ginsberg, Alexander B., Baltimore
 Goldberg, Benjamin, Baltimore
 Goodman, Samuel, Baltimore
 Gray, Thomas E., Baltimore
 Griffith, Arthur E., Baltimore

Harwood, Francis C., Baltimore
 Hopkins, Robert M., Baltimore
 Horner, James K., Baltimore
 Howard, Joseph H., Waldorf
 Jacobs, Thomas M., Millington
 Katz, Jay S., Baltimore
 Kemp, Allen D., Frederick
 Kolker, Irving M., Baltimore
 Kuethe, Marian, Baltimore
 Martin, Patrick F., Baltimore
 McWilliams, William J., Annapolis
 Meade, Hugh Allen, Baltimore
 Merrill, William H., Pocomoke City
 Miller, Frederick D., Baltimore
 Mills, Daniel C., Sparrows Point
 Mullen, Elmer T., Baltimore
 Peach, Francis T., Granite
 Plummer, Hiram F., Baltimore
 Poster, Tillie, Baltimore
 Pratt, Henry B., Pasadena
 Rheb, Charles F., Baltimore
 Rogers, Grafton D., Baltimore
 Rowles, Albert F., Baltimore
 Russell, Charles E., Baltimore
 Sagel, Louis, Baltimore
 Samuelson, Oscar, Baltimore
 Schleisner, Samuel J., Baltimore
 Schonowski, John J., Baltimore
 Slingluff, Robert L., Baltimore

Snodgrass, Ira D., Halethorpe
 Spates, George P., Baltimore
 Stevens, Paul B., Baltimore
 Stone, Jesse Edwin, Emmitsburg
 Stone, Richard Gabriel, Baltimore
 Stutman, William, Baltimore
 Sutton, Franklin W., Baltimore
 Sutton, Fredus E., Black
 Tarrant, Eugene U., Baltimore

Towers, Albert G., Baltimore
 Twardowicz, Mitchell L., Baltimore
 Urban, George E., Baltimore
 Waldmann, Anthony W., Fullerton
 Warner, Douglas R., Baltimore
 Weller, Walter W., Catonsville
 Whiteford, William H., Baltimore
 Winstead, John L., Elm City, N. C.
 Zamanski, Bernard T., Baltimore

SECOND YEAR DAY CLASS

Brocato, Charles V., Baltimore
 Carroll, Charles, Ellicott City
 Casey, Mary E., Baltimore
 Cohen, Moses, Baltimore
 Coogan, Edwin C., Norfolk, Va.
 Cox, Hewlett B., Baltimore
 Doub, Albert A., Cumberland
 Geckler, George F., Baltimore
 Gordon, Stewart E., Easton
 Hirschmann, Joseph R., Baltimore
 Hurwitz, Isidore D., Baltimore
 Janofsky, Louis, Baltimore
 Kenney, John H., Naugatuck, Conn.
 Klein, David, Baltimore
 Levi, Sidney, Baltimore
 Martin, Edwin Gill, Relay
 McCoy, George G., Baltimore
 Mylander, Elmer L., Baltimore

Neuberger, Alvin, Baltimore
 O'Brien, Edward A., Ellicott City
 Preston, Wilbur J., Baltimore
 Reed, Joel H., Stafford Springs, Conn.
 Renzi, William A., Baltimore
 Rivkin, Leon, Baltimore
 Roman, Donald P., Baltimore
 Sachs, Philip H., Baltimore
 Scherr, Percy, Baltimore
 Schloss, Irvin A., Baltimore
 Schwartzman, Louis, Baltimore
 Seabolt, Martin W., Baltimore
 Seligman, Sidney H., Northfork, W. Va.
 Storch, M. Leo, Baltimore
 Swiskowski, Bernard C., Baltimore
 Trojakowski, Chester A., Baltimore
 Vogel, Charles E., Baltimore
 Woodward, James G., Annapolis

FIRST YEAR DAY CLASS

Amenta, Harry R., Baltimore
 Bouis, George E., Mt. Washington
 Craig, Allan J., Baltimore
 Davidson, Meyer, Baltimore
 Dent, Wade Gilbert, Clinton
 Dimarco, Frank Antony, Baltimore
 Fram, Morris D., Cumberland
 Goldbloom, Lawrence J., Baltimore
 Goldstein, Joseph C., Baltimore
 Hamilton, Daniel H., Sudbrook Park
 Kobren, William, Bayonne, N. J.
 Kwasnik, Stephen I., Baltimore

Levy, Karl M., Baltimore
 McDorman, Francis L., Mt. Washington
 Meyer, Sigmund, Enfield, N. C.
 Millman, Morton M., Baltimore
 Palmisano, William C., Baltimore
 Roseman, Edward, Baltimore
 Seidman, Joel I., Baltimore
 Tippet, Richard B., Baltimore
 Tompkins, Thomas B., St. Albans, W. Va.
 Wagannan, John, Hagerstown
 Watson, Xavier J., Baltimore

UNCLASSIFIED STUDENTS

Ash, George R., Elkton
 Barron, Sylvan, Baltimore
 Barr, Gerard F., Baltimore
 Bostetter, Martin V., Hagerstown
 Cooper, Margaret B., Baltimore
 Dillon, John J., Baltimore
 Druery, Oliver K., Baltimore
 Evans, Harvey L., Baltimore
 Galvin, John P., Baltimore
 Hampson, George M., Baltimore
 Hormatz, Leonard J., Baltimore
 Kelso, Charles A., Baltimore
 Klein, Irvin, Baltimore

Kletzner, Frank, Baltimore
 Knabe, Lloyd C., Windsor Hills
 Kurland, Edwin L., Baltimore
 Lipman, Samuel G., Baltimore
 Malan, Albert A., Baltimore
 Mihm, Leslie E., Baltimore
 Minahan, Raymond A., Baltimore
 Myers, Israel, Baltimore
 Nuttle, Everitt, Federalsburg
 Pear, Solomon, Baltimore
 Perry, Thornton, Tayloe, Baltimore
 Richardson, Standley L., Stemmers Run
 Rubin, Irwin, Baltimore

Saffell, William H., Reisterstown
Schiffer, Rosa, Baltimore
Schilff, Carroll B., Baltimore
Schultz, Kendall H., Baltimore

Weil, John deF., Baltimore

SCHOOL OF MEDICINE

SENIOR CLASS

Adzinia, Joseph M., Bridgeport, Conn.
Apt. Albert J., Brooklyn, N. Y.
Armucost, Joshua H., Baltimore
Ball, Claude R., Morgantown, W. Va.
Bankhead, John M., Lowrey, S. C.
Basil, George C., Annapolis
Belsky, Hyman, New York City
Benesanes, Joseph G., Baltimore
Bailostosky, Julius, Brooklyn, N. Y.
Birnbau, Joseph O., Bronx, N. Y.
Cadden, John F., Keyser, W. Va.
Carey, Thomas N., Baltimore
Chase, William Wiley, Baltimore
Cohen, Bernard J., Baltimore
Cohen, Morris D., New Rochelle, N. Y.
Condry, Raphael J., Clarksburg, W. Va.
Conington, Elijah E., Linden, N. C.
Davis, Henry Vincent, Berlin
Donchi, Sol M., Newark, N. J.
Eliason, Harved W., Rowlesburg, W. Va.
Feldman, Jacob, Bronx, N. Y.
Fidler, Kemp A., Tioga, W. Va.
Finkelstein, Abraham H., Brooklyn, N. Y.
Friedman, Meyer H., Trenton, N. J.
Garner, Wade Hampton, Brenton, Ala.
Gellar, Abraham, Brooklyn, N. Y.
Gillis, Francis W., Baltimore
Ginsberg, Henry, Baltimore
Glick, Bernard, Lyndhurst, N. J.
Gill, Charles E., Harrington, Del.
Goldstein, Milton J., Brooklyn, N. Y.
Goldberg, Isidore, Dunellin, N. J.
Heisley, Rowland S., Baltimore
Hewitt, John Frank, Baltimore
Hoke, Dwight M., Organ Cave, W. Va.
Hummel, Ira Lee C., Salem, N. J.
Johnson, Jesse R., Huntington, W. Va.
Kahan, Philip J., Bronx, N. Y.
Karns, Clyde F., Cumberland
Kayser, Fayne A., Belington, W. Va.
Klawans, Maurice F., Annapolis

Sear, Abram, Hampton, Va.
Silberstein, Louis, Baltimore
Smalkin, Samuel S., Baltimore
Usilton, David R., Baltimore

Kutner, Charles, Camden, N. J.
Lassman, Samuel, New York City
Lazow, S. M., New York City
Lenson, Byruth K., Baltimore
Leyko, Julius J., Baltimore
Lilly, Goff P., Charleston, W. Va.
Mattikow, Bernard, Brooklyn, N. Y.
Milhoan, Asa W., Murraysville, W. Va.
Misenheimer, Ed. Alex, Concord, N. C.
Moran, John E., Greenfield, Mass.
Morris, Frank K., Baltimore
Nussbaum, Samuel, Pine Hill, N. Y.
Peake, Clarence W., Aflex, Ky.
Phillips, John R., Quantico
Reifschneider, Herbert E., Baltimore
Saffell, James G., Baltimore
Schuier, Samuel B., Bronx, N. Y.
Schwedel, John B., Baltimore
Sparta, Anthony J., Easton, Pa.
Staton, Hilliard V., Hendersonville, N. C.
Stonesifer, Charles H., Westminster
Strayer, Helen C., Baltimore
Swank, James L., Elk Lick, Pa.
Swartzwelder, Wallace R., Mercersburg, Pa.
Talbot, Henry P., Lafayette, Ala.
Tayloe, Gordon B., Aulander, N. C.
Teague, Francis B., Martinsville, Va.
Thompson, Thomas P., Forest Hill
Tollin, Louis, Newark, N. J.
Tatterdale, William G., Baltimore
Tumminello, Salvatore A., Baltimore
Upton, Hiram E., Burlington, Vt.
Voigt, Herman Albert, Baltimore
Von Schulz, Augustine P., Baltimore
Wack, Fred V., Pt. Pleasant Beach, N. J.
Waesche, Fred S., Sykesville
Whittington, Claude T., Greensboro, N. C.
Williams, Palmer F. C., Baltimore
Wilner, Joseph W., New York City
Wollack, Theodore, Baltimore
Zinn, Ralph H., Morgantown, W. Va.

JUNIOR CLASS

Baer, Adolph, Brooklyn, N. Y.
Bailey, Hugh A., Chester, S. C.
Bedri, Marcel R., Palestine
Berger, William A., Bloomfield, N. J.
Bernhard, Robert, New York City
Blecherman, Irving E., Brooklyn, N. Y.

Bonelli, Nicholas W., Lyndhurst, N. J.
Brager, Simon, Baltimore
Chor, Herman, Baltimore
Christian, William, Nanticoke, Pa.
Clemson, Earle Princeton, Baltimore
Duckwall, Frederick M., Berkeley Springs, W. Va.

Duncan, George A., Clarksburg, W. Va.
Friedman, Bernard, Brooklyn, N. Y.
Garred, Herbert W. D., Charleston, W. Va.
Gelber, Jacob S., Newport, R. I.
George, Jessie E., Morgantown, W. Va.
Goldberg, Victor, Baltimore
Goodman, Jerome E., Baltimore
Greer, Creed C., Parkersburg, W. Va.
Grollman, Aaron I., Baltimore
Gulck, Georg K., Denmark
Gundry, Lewis P., Relay
Hankin, Samuel J., Baltimore
Hayes, Paul, Baltimore
Harold, Lewis J., New York City
Johnson, Walter B., Baltimore
Jones, Henry Alvan, Baltimore
Kaminsky, Philip, New York City
Kaufman, Israel, Brooklyn, N. Y.
Kohn, Theodore, Columbia, S. C.
Lampert, Hyman, Brooklyn, N. Y.
Lamstein, Jacob I., New York City
Laukaitis, Joseph G., Baltimore
Lerner, Morris, Brooklyn, N. Y.
Levinsky, Maurice, Bridgeport, Conn.
Levinson, Louis J., Brooklyn, N. Y.
Levy, Walter H., New York City
Limbach, Earl F., Massillon, Ohio
Litsinger, Edward A., Hinton, W. Va.
Little, Luther E., Darlington
Littman, Irving I., Baltimore
Lyon, Isadore B., Hagerstown
Mace, John, Cambridge
Maddi, Vincent M., Williamsbridge, N. Y.
Maged, A. J., Suffern, N. Y.
McCeney, Robert Sadler, Laurel
McDowell, Roy H., Cherryville, N. C.
McFaul, William N., Baltimore
McGee, William B., Charleston, W. Va.
Mee, Robert A., Wakefield, N. H.
Meister, Aaron, Brooklyn, N. Y.

SOPHOMORE CLASS

Abramowitz, Max, Brooklyn, N. Y.
Ackerman, Jacob H., Brooklyn, N. Y.
Alessi, Silvio A., Baltimore
Anderson, Andus W., Baltimore
Bardfeld, Benjamin, Vineland, N. J.
Barland, Samuel, Bronx, N. Y.
Benson, Alvan H., Baltimore
Birely, Morris F., Thurmont
Bongiorno, Henry D., Passaic, N. J.
Botsch, Bernard, Alliance, Ohio
Bowen, James P., Belton, S. C.
Brauer, Selig L., Jersey City, N. J.
Calas, Andres E., Cuba
Chambers, Earl L., Baltimore
Chapman, William H., Baltimore
Cicccone, Arnold W., Providence, R. I.
Cohen, Herman, Trenton, N. J.

Merksamer, Davis, Brooklyn, N. Y.
Merlino, Frank A., Hammonton, N. J.
Messina, Vincent M., Baltimore
Mostwill, Ralph, Jersey City, N. J.
Neuman, Finley F., Cleveland Hts., Ohio
Piacentine, Pasquale A., New York City
Pileggi, Peter, Newark, N. J.
Rascoff, Henry, Brooklyn, N. Y.
Rich, Benjamin S., Baltimore
Roetling, Carl P., Baltimore
Rosen, Marks J., Brooklyn, N. Y.
Rubinstein, Hyman S., Baltimore
Rutter, Joseph H., Baltimore
Saffron, Morris H., Passaic, N. J.
Sardo, Samuel P., Johnstown, Pa.
Shaw, Cecil C., Whatley, Ala.
Silver, Abraham A., New Haven, Conn.
Singer, Jack J., Baltimore
Smoot, Aubrey C., Fullerton
Smoot, Merrill C., Oxford
Stacy, Theodore E., Baltimore
Tannenbaum, Morris, New York City
Taylor, Charles V., Baltimore
Temple, Levi W., Lake View, S. C.
Tanner, David, Baltimore
Tkoch, Nathan H., Brooklyn, N. Y.
Varney, William H., Baltimore
Vernaglia, Anthony P., Bronx, N. Y.
Vogel, S. Zachary, Brooklyn, N. Y.
Volenick, Lee J., Brooklyn, N. Y.
Walter, Frank P., Kennett Square, Pa.
Warner, Carroll G., Baltimore
Weintraub, Fred S., Baltimore
Weisenfeld, Nathan, Hartford, Conn.
Weiss, Aaron, Jamaica, L. I.
Wells, Samuel R., New Martinsville, W. Va.
Wilkerson, Albert R., Baltimore
Wolf, Frederick S., Baltimore
Wurzel, Milton, Newark, N. J.
Zimmerman, Frederick T., Baltimore

Ginglia, Sascha F., New York City
 Haney, John J., Trenton, N. J.
 Heck, Leroy S., Baltimore
 Horowitz, Morris, Springfield, Mass.
 Husted, Samuel H., Newport, N. J.
 Jackson, Murray E., New York City
 Jacobs, Abraham, Brooklyn, N. Y.
 Kelly, Clyde E., Scottdale, Pa.
 Kirschner, Abe E., New York City
 Knight, Walter Philip, Throop, Pa.
 Levi, Ernest, Baltimore
 Lukesh, Stephen M., Wyoming, Pa.
 Lynn, Irving, Jersey City, N. J.
 Lynn, John Galloway, Cumberland
 Matsumura, Junichi, Hawaii
 McAndrew, Joseph T., Clarksburg, W. Va.
 McGowan, Joseph F., McKees Rocks, Pa.
 Meranski, Israel, Hartford, Conn.
 Morgan, Isaac J., Pittsburgh, Pa.
 Murphy, John E., Olyphant, Pa.
 Neistadt, Isidore I., Baltimore
 Newman, Saul C., Hartford, Conn.
 Nickman, Emanuel H., Atlantic City, N. J.
 O'Den, John F., Elmira, N. Y.
 Osborne, A. Downey, College Park
 Overton, Lewis M., Rocky Mount, N. C.
 Panchansky, Samuel J., Bayonne, N. J.

Yudkoff, William, Bayonne, N. J.

FRESHMAN CLASS

Aiau, Chadwick K., Baltimore
 Alexander, Hattie E., Baltimore
 Anderson, Lucile R., Knoxville, Tenn.
 Aronofsky, Milton R., Hartford, Conn.
 Ashman, Harry, Bronx, N. Y.
 Bamberger, Beatrice, Baltimore
 Baumgardner, George M., Emmitsburg
 Baumgartner, Eugene I., Oakland
 Baylus, Meyer M., Baltimore
 Belinkin, William, New York City
 Benfer, Kenneth L., Baltimore
 Berkowitz, Rudolph, Bronx, N. Y.
 Berman, Henry I., Baltimore
 Blum, Joseph Sydney, Baltimore
 Brannan, Francis C., Baltimore
 Brayshaw, Thomas H., Glen Burnie
 Burns, John H., Sparrows Point
 Cerilli, Guido J., Providence, R. I.
 Chenitz, William, Newark, N. J.
 Clayman, David S., Baltimore
 Cohen, Archie R., Baltimore
 Cohen, Irvin J., Baltimore
 Cohen, Max H., Baltimore
 Cohen, Paul, Moorestown, N. J.
 Demarco, Salvatore J., Baltimore
 Di Paula, Robert S., Baltimore
 Donohue, Bernard W., Baltimore
 Durrett, Clay E., Cumberland
 Faw, Wylie M., Cumberland

Porterfield, Maurice C., Baltimore
 Prager, Benjamin, Brooklyn, N. Y.
 Quinn, Thomas F., Dunmore, Pa.
 Reeder, Paul A., Buckhannon, W. Va.
 Reilly, John V., Newark, N. J.
 Roberts, Eldred, Westernport
 Safer, Jake V., Jacksonville, Fla.
 Safford, Henry T., El Paso, Texas
 Schreiber, Morris, Brooklyn, N. Y.
 Schwartzbach, Saul, Brooklyn, N. Y.
 Seibel, Jack, Brooklyn, N. Y.
 Sekerak, Raymond A., Bridgeport, Conn.
 Serra, Lawrence M., Brooklyn
 Sikorsky, Albert E., Baltimore
 Silver, Mabel I., Baltimore
 Soifer, Albert A., Baltimore
 Solomon, Milton, Brooklyn, N. Y.
 Speicher, Wilbur G., Accident
 Spencer, Ernest, Bel Alton
 Spurrier, Oliver W., Baltimore
 Staton, Leon R., Hendersonville, N. C.
 Stevenson, Chas. C., Salt Lake City, Utah
 Sullivan, William J., Providence, R. I.
 Ullrich, Henry F., Baltimore
 Vann, Horner K., Sibrenge, Fla.
 Wallack, Charles A., Newark, N. J.
 Ward, Hugh W., Owings

Feman, Jacob G., Brooklyn, N. Y.
 Fisher, Samuel, Paterson, N. J.
 Flescher, Julius, Baltimore
 Friedman, Reuben Abe, Baltimore
 Fuhrman, William W., Baltimore
 Garey, James L., State College, Pa.
 Garfinkel, Abraham, New York City
 Gerner, Harry E., Jersey City, N. J.
 Gersten, Paul F., Brooklyn, N. Y.
 Ginsberg, Leon, Bronx, N. Y.
 Goldman, Lester M., Newark, N. J.
 Goldstein, Jacob E., New York City
 Goodman, Julius H., Baltimore
 Grove, Donald B., Cumberland
 Hildenbrand, Emil J. C., New Market
 Hornbaker, John H., Hagerstown
 Hudson, Rollin C., Towson
 Jaklitsch, Frank H., Richmond Hill, N. Y.
 Johnson, Marius P., Hartford, Conn.
 Kaufman, Max, Brooklyn, N. Y.
 Kermisch, Albert, Baltimore
 Kleinman, Abraham M., Brooklyn, N. Y.
 Kovarsky, Albert E., Freehold, N. J.
 Kraemer, Samuel H., Jersey City, N. J.
 Kremen, Abraham, Baltimore
 Kuhn, Esther F., Baltimore
 Lang, Abraham, New York City
 Levin, Morton L., Baltimore
 Levy, Solomon, Palestine

Lewandoski, Henry C., Baltimore
 Lewis, Frank R., Whaleysville
 Magovern, Thomas F., S. Orange, N. J.
 Mansdorfer, G. Bowers, Baltimore
 Marianetti, Amerigo L., N. Providence,
 Rhode Island
 McDonald, Thomas K., Norrisville
 McDowell, Harold C., Cherryville, N. C.
 McElwee, Murray J., McKeesport, Pa.
 McGreevy, Joan F., Baltimore
 Mednick, Benjamin W., Brooklyn, N. Y.
 Miller, Benjamin H., Port Deposit
 Miller, Isaac, Bergen, N. J.
 Miller, James A., Baltimore
 Montilla, Victor J., Porto Rico
 Mortimer, Egbert L., Baltimore
 Needle, Nathan E., Baltimore
 Nocera, Francisco P., Porto Rico
 Palmer, Thomas V., Lawndale, N. C.
 Perlman, Robert, Brooklyn, N. Y.
 Post, Charles G., New Brighton, N. Y.
 Powell, Joseph L., Scranton, Pa.
 Rehmyer, Walter O., Shrewsbury, Pa.
 Reid, Francis F., Baltimore
 Rigdon, Wilson O., Cardiff

Zeiger, Samuel, Brooklyn, N. Y.

Rineberg, Irving E., New Brunswick, N. J.
 Rohr, John A., Lancaster, Pa.
 Romano, Nicholas M., Roseto, Pa.
 Rosenthal, Abner H., Brooklyn, N. Y.
 Rozum, John Charles, Sloatsburg, N. Y.
 Sanchez, Robert L., New York City
 Sasscer, Buchanan B., Upper Marlboro
 Schimunek, Emmanuel A., Baltimore
 Schnabel, William T., Baltimore
 Sears, Joseph E., Stemmers Run
 Segal, Samuel M., Philadelphia, Pa.
 Shelley, Harry S., Baltimore
 Shill, Benjamin, Newark, N. J.
 Shulman, Louis R., Baltimore
 Smith, Joseph J., Bridgeport, Conn.
 Snoops, George J., Baltimore
 Snyder, Nathan, Baltimore
 Soltroff, Jack G., Philadelphia, Pa.
 Sperling, Nathaniel M., Brooklyn, N. Y.
 Strzelecki, Edward A., Jersey City, N. J.
 Topchik, Irving, New Jersey, N. J.
 Wattenmaker, Hymen, Pittsburgh, Pa.
 Weinstein, Jack, Brooklyn, N. Y.
 Werner, Aaron Seth, Brooklyn, N. Y.
 Young, Ralph F., Hagerstown

SCHOOL OF NURSING

POST-GRADUATE

Bolte, Christina, Easton

GRADUATES

Bond, Mildred A., Ashton
 Caples, Virginia E., Baltimore
 Colbourne, Lillian E., Hurlock
 Ewell, Betty, Baltimore
 Fink, Margaret V., Berwyn
 Hershey, Esther E., Gap, Pa.

Hurlock, Edna Myrtle, Eastport
 Mundy, Fannie M., Abbeville, S. C.
 Powel, Marian E., Govans
 Royster, Lucy, Henderson, N. C.
 Scott, Elizabeth, Frostburg
 Shoultz, Carol C., Anderson, Ind.

SENIORS

Baldwin, Estella C., Elkridge
 Blackburn, Hazel D., Port Deposit
 Bost, Stella P., Newton, N. C.
 Foust, Eva A., Dundalk
 Gerber, T. Rhae, Hagerstown
 Hall, Rebecca J., North East
 Henderson, Jane G., San Diego, Cal.
 Hoffman, Celeste E., Baltimore

Holloway, Ethel C., Hebron
 Jackson, Virginia Esther, Newark
 Jarrell, Emma E., Chestertown
 Krouse, Beatrice L., Frostburg
 Seiss, Theodosia M., Rocky Ridge
 Smith, Nancy I., White Stone, Va.
 Wallis, Louisa M., North East
 Young, Grace, Taneytown

INTERMEDIATES

Berry, Elizabeth A., Martinsburg, W. Va.
 Currens, Margaret E., Sykesville
 Dugger, Hilda L., Boswell, Pa.
 Hall, Edith E., North East
 Hamrick, Irene E., Hickory, N. C.
 Hastings, Martha A., Delmar, Del.
 Hoffman, Anne E., Woodsboro

Holt, Agnes L., Seaford, Del.
 Hough, Goldie I., Boyds
 Huddleston, Thelma Lee, Raleigh, N. C.
 Kelly, Mary, Ocean City
 Leishear, Frances M., Brookesville
 Magruder, Martha A., Baltimore
 Marcus, Mildred M., Williamsport, Pa.

Pearce, Marie C., National
 Pennewell, Elizabeth S., Berlin
 Priestler, Elizabeth A., Catonsville
 Riffle, Margaret M., Emmitsburg
 Roth, Katherine, Morgantown, W. Va.

Slacum, Emily Rose, Delmar, Del.
 Smith, Vada Brunetta, Baltimore
 Wagner, Grace B., Table Rock, Pa.
 Winship, Emma Arline, Baltimore
 Work, Elizabeth R., Dallastown, Pa.

JUNIORS

Bunting, Yaynell, Durham, N. C.
 Clenenger, Louise, Winchester, Va.
 Conner, Gertrude Nelson, Berlin
 Cruise, Bertha L. F., Roanoke, Va.
 Emmert, Grace M., Washington, D. C.
 Esterly, Edna A., Frederick
 Gillies, Christina B., Jamaica, B. W. I.
 Hall, Mary R., Wilkesboro, N. C.

Hardy, Hessie D., Gulfport, Miss.
 Irons, Pauline E., York, Pa.
 Shaw, Isabel S., Taneytown
 Shipley, Mildred M., Sykesville
 Wood, Zelda E., Baltimore
 Wright, Kathryn E., Tannery
 Yast, Mary A., Winchester, Va.
 Young, Ruth A., Taneytown

PROBATIONERS

Bradburn, Eva M., Spencer, N. C.
 Buch, Eloise, Halethorpe
 Coulter, Mildred, Newton, N. C.
 Dick, Grace, Lonaconing
 Dill, Naomi, Severna Park
 Fazenbaker, Freda, Westernport
 Fite, Lida J., Dauphin, Pa.
 Fox, Maggie M., Sellman
 Goff, Mary K., Martinsburg, W. Va.
 Goldsborough, Eleanor E., Romney
 Goodman, Hattie G., Princess Anne
 Haddox, Evelyn C., Berkely Spgs., W. Va.
 Harrison, Dollie, Spencer, N. C.
 Hastings, Daisymae, Hurlock
 Isanogle, Thelma E., Thurmont
 Jenkins, Mabel W., Montross, Va.
 Michael, Evelyn M., Westernport
 Miller, Corrinne Bennett, Lonaconing
 Moore, Virginia S., Lloyds
 Moore, Vivian M., Frederick
 Morgan, Edith Eugenia, Massies Mill, Va.

McLaughlin, Gertrude C., Jacksonburg,
 West Virginia
 Neikirk, Milbrey C., Boonsbald
 Nelson, Margaret, Havre de Grace
 Ocheltree, Martha M., Weston, W. Va.
 Pifer, Martha R., Strasburg, Va.
 Pusey, Hannah L., Ocean City
 Rankin, Mildred N., Madison, N. C.
 Ross, Verna N., Barton
 Roth, Emma E., Hamilton
 Shoaf, Clara M., Linwood, N. C.
 Swartz, Vesta L., Strasburg, Va.
 Thawley, Grace L., Hobbs
 Thompson, Mary E., Havre de Grace
 Valaco, Dena V., Baltimore
 Vickers, Louise D., Federalsburg
 Victor, Alberta L., Baltimore
 Walsh, Helen B., Rowlesburg, W. Va.
 Wetzel, Larue K., Union Mills
 Willis, Hilda D., Bridgeton, N. C.
 Zapf, Evelyn, Baltimore

SCHOOL OF PHARMACY

GRADUATE STUDENTS

Bauer, John C., Baltimore

Goldstein, Samuel W., Baltimore
 Waterman, Richard H., Baltimore

SENIOR CLASS

Abramowitz, Robert N., Baltimore
 Albrecht, William F., Linthicum
 Benick, Carroll R., Baltimore
 Bercowitz, Bernard J., Baltimore
 Bernstein, Joseph, Baltimore
 Binkley, Leavitt H., Hagerstown
 Chandler, Willard, Cape Charles, Va.
 Dileher, Charles R., Baltimore
 Fisher, Delphia F., Baltimore
 Fite, George R., Hagerstown
 Foote, Wilbur C., Baltimore
 Gleiman, Isidore J., Baltimore

Haskell, Marian L., Lutherville
 Heer, Wilmer J., Baltimore
 Itzoe, Andrew J., New Freedom, Pa.
 Garvis, Charles F., Centreville
 Kaminska, Janina J., Baltimore
 Katz, Herbert A., Baltimore
 Kellough, Charles I., Howardville
 Kolman, M. Alfred, Baltimore
 Kramer, Philip, Baltimore
 Kraus, Louis H., Baltimore
 Levy, Morris Z., Baltimore
 Lipsky, Harold, Baltimore

Lum, Max R., Boonsboro
 Martin, Thomas A., Asbestos
 McAllister, Benjamin, Cambridge
 McGarry, Charles E., Baltimore
 Olsan, Frank, Baltimore

Pugatsky, David, Baltimore
 Saslaw, Israel S., Baltimore
 Webster, Samuel E., Cambridge
 Wood, Medford C., Glen Rock, Pa.
 Yarmack, Morris H., Baltimore

Zvares, Simon, Baltimore

INTERMEDIATE CLASS

Barry, Wilbur F., Baltimore
 Belford, Joseph, Baltimore
 Bernstein, Joseph, Baltimore
 Blumson, Samuel, Baltimore
 Bretzfelder, Benjamin, Washington, D. C.
 Cannalato, Vincent J., Baltimore
 Christ, Frank P., Hughesville
 Cohan, Nathaniel T., Trenton, N. J.
 Cohen, Irving I., Baltimore
 Cohen, Isidore, Baltimore
 Crecca, Anthony D., Newark, N. J.
 Demback, Walter D., Baltimore
 Dickman, Hyman, Baltimore
 Doty, Elmer C., Baltimore
 Eichert, Herbert, Woodlawn
 Fitzsimmons, Milton J., Baltimore
 Glass, Albert J., Baltimore
 Gross, William, Baltimore
 Greenbaum, Samuel L., Baltimore
 Greif, Daniel, Baltimore
 Greif, Julius, Baltimore
 Hantman, Irvin, Baltimore
 Hoffman, Aaron, Baltimore
 Hoffman, Harry, Baltimore
 Kairis, John J., Baltimore
 Karpa, Isador, Baltimore
 Kress, Milton B., Baltimore
 Krucoff, Maxwell A., Baltimore
 Lebowitz, Harry, Baltimore

Levine, Vincent C., Baltimore
 London, Samuel, Baltimore
 MacGill, Fred H., Ridgewood, N. J.
 Manchey, Lessel L., Glen Rock, Pa.
 Matassa, Vincent L., Baltimore
 Michel, George C., Baltimore
 Millard, Ruth, Baltimore
 Myers, Ellis, Baltimore
 O'Connor, Rita F., Cumberland
 Pagenhardt, Arthur E., Westernport
 Rosenfeld, David H., Baltimore
 Sachs, Abraham, Baltimore
 Sachs, Raymond, Baltimore
 Satou, Marcus, Baltimore
 Saunders, Thomas S., Baltimore
 Schiff, Nathan, Baltimore
 Schlachman, Milton, Baltimore
 Schwartz, David I., Baltimore
 Senger, Joseph A., Baltimore
 Shesetsky, Samuel J., Baltimore
 Silbert, Andrew W., Baltimore
 Silverman, Albert M., Baltimore
 Silverman, Sylvan B., Baltimore
 Snyder, Jerome, Baltimore
 Springer, Lewis R., Baltimore
 Stichman, Solomon, Baltimore
 Tarantino, John T., Annapolis
 Theodore, Raymond M., Baltimore
 Trattner, James N., York, Pa.

FRESHMAN CLASS

Abelson, Abraham A., Baltimore
 Abelson, Bernard, Baltimore
 Ansell, Max S., Clifton
 Archambault, Paul J., McIntosh, S. D.
 Bayley, John S., Govans
 Baylus, Joseph, Baltimore
 Becker, Samuel, Baltimore
 Behrens, Joseph J., Baltimore
 Bell, John F., Baltimore
 Bernhardt, William, Baltimore
 Blacker, Bernard, Baltimore
 Block, Michael, Baltimore
 Brickman, Hilliard, Baltimore
 Budacz, Frank M., Baltimore
 Campbell, Edward C., Baltimore
 Caplan, Bernard S., Baltimore
 Carliner, Paul, Baltimore
 Carozza, Max F., Baltimore
 Cavacos, Andrew, Baltimore
 Chandler, Nehemiah W., Ocean City

Cohen, Benjamin B., Baltimore
 Cohen, Harry J., Baltimore
 Cohen, Isador M., Baltimore
 Cohen, Joseph, Baltimore
 Cornblatt, Edmund A., Baltimore
 Crane, Charles, Baltimore
 Cwalina, Gustav E., Baltimore
 Deal, Justin, Cumberland
 Delson, Hyman, Baltimore
 De Paola, Vincent S., Baltimore
 Diagon, Bernard M., Baltimore
 Dyott, William H., Baltimore
 Eason, Frederick B., Baltimore
 Edelstein, Joseph H., Baltimore
 Eisman, Morris J., Baltimore
 Elson, Norman, New York City
 Etzler, S. Alvin, Mourovia
 Feldpush, Norman, Baltimore
 Fineman, Elliott, Baltimore
 Foley, William T., Harve de Grace

Gaboff, Benjamin, Baltimore
 Gawthrop, Alfred J., Baltimore
 Gildea, William J., Aberdeen
 Ginsberg, Benjamin H., Baltimore
 Glick, Harry, Baltimore
 Gluck, Julius, Baltimore
 Goldstein, Albert, Baltimore
 Goodman, Daniel, Baltimore
 Gorban, Thomas, Baltimore
 Greenberg, Harry Lee, Baltimore
 Greenberg, Vivian R., Baltimore
 Greenfeld, Charles, Baltimore
 Greenfeld, Jacob H., Baltimore
 Grove, Donald C., Baltimore
 Grove, Elmer K., Baltimore
 Gum, Wlibur H., White Sulphur, W. Va.
 Gutman, Isaac, Baltimore
 Hack, Morris B., Baltimore
 Harrison, Percy L., Tilghman
 Heim, Louis S., Baltimore
 Helbig, John H., Oakland
 Helman, Max, Baltimore
 Hergenrather, Elizabeth S., Towson
 Hergenrather, Louis, Towson
 Highstein, Gustav, Baltimore
 Hirschhorn, Nathan R., Baltimore
 Horine, Randolph A., Westminster
 Ichniowski, Cosimer T., Baltimore
 Itzoe, Leonard V., New Freedom, Pa.
 Jacobs, Corinne H., Newport News, Va.
 Kallinsky, Henry D., Baltimore
 Kamtman, August C., Baltimore
 Kane, Francis J., Bridgeport, Conn.
 Kaplan, Sigmund, Baltimore
 Kappelman, Leroy F., Baltimore
 Karlinsky, David, Baltimore
 Karpa, Maurice, Baltimore
 Kaufman, Stanley L., Carroll Station
 Kerpelman, Isaac, Baltimore
 Klein, Benjamin F., Baltimore
 Kramer, Charles, Baltimore
 Kroopnick, Frieda, Baltimore
 Kunkel, Frank W., Baltimore
 Kurland, Louis J., Baltimore
 Kurtzville, Hymen L., Baltimore
 Lagna, Ernest L., Baltimore
 Lathroum, Tonny R., Baltimore
 Lazzaro, Samuel F., Baltimore
 Leboff, Solomon, Baltimore
 Lesser, Abraham D., Baltimore
 Levin, Morris, Baltimore
 Levin, Sam B., Baltimore
 Levin, Sidney, Baltimore
 Levin, Theodore, Baltimore
 Levinson, Leon A., Baltimore
 Levy, Abraham M., Baltimore
 Liberto, Joseph, Baltimore
 Liptz, Alvin, Baltimore
 Love, Edward B., Atlantic City, N. J.

Luce, Harold D., Long Island, N. Y.
 Lyon, Thomas S., Havre de Grace
 Martocci, Filbert J., Baltimore
 McNally, Hugh B., Baltimore
 Malinoski, Wallace H., Baltimore
 Mallet, Victor J., Baltimore
 McFarland, Robert E., Baltimore
 McGill, John L., Kings Mountain, N. C.
 Merican, Albert D., Baltimore
 Meeth, George R., Baltimore
 Miller, Harry, Baltimore
 Miller, Lewis, Baltimore
 Miller, Nathaniel A., Baltimore
 Morgan, Alfred K., Baltimore
 Muir, William, Baltimore
 Muncy, Marion, Georgetown, Ill.
 Murphy, William M., Laurel
 Nitsch, Charles A., Baltimore
 Niznik, Theodore T., Baltimore
 Pasco, Louis E., Baltimore
 Petts, George E., Stemmers Run
 Plevinsky, Maurice, Camden, N. J.
 Pollekoff, Jacob, Baltimore
 Poltilove, Harvey G., Baltimore
 Poguelskin, Milton A., Baltimore
 Portocarrero, Oscar V., Porto Rico
 Provenza, Stephen J., Baltimore
 Rachliss, David J., Baltimore
 Radeloff, Myer, Baltimore
 Raffel, Leon, Baltimore
 Reichert, Leroy D., Overlea
 Richmond, Samuel, Baltimore
 Roberts, Bertran, Westernport
 Roberts, William P., Baltimore
 Rodowskas, Christopher A., Curtis Bay
 Roll, Jerome, Baltimore
 Rosenberg, Bernard R., Baltimore
 Rosenberg, Milton B., Baltimore
 Rosenblatt, Sydney, Baltimore
 Rubin, Maurice M., Baltimore
 Rubin, Samuel, Baltimore
 Rubin, William M., Baltimore
 Rudo, Herbert B., Baltimore
 Sacksman, Edward, Elizabeth, N. J.
 Sager, Bennie J., Front Royal, Va.
 Sapperstein, Jacob, Baltimore
 Schapiro, Samuel, Baltimore
 Scheinker, Hadessa E., Canton, Ohio
 Schochet, George, Baltimore
 Schonfeld, Paul, Baltimore
 Schwartz, Paul, Baltimore
 Sealfon, Irwin I., Baltimore
 Sedlank, Joseph A., Towson
 Seidman, Henry G., Baltimore
 Settler, Myer, Baltimore
 Shivers, Mildred L., Baltimore
 Silverman, Martin, Baltimore
 Silverman, Paul, Baltimore
 Singer, George D., Baltimore

Singer, Isidore E., Baltimore
 Slusky, Louis B., Chelsea, N. J.
 Sollod, Aaron C., Baltimore
 Spigelmire, Charles E., Sparrows Point
 Stein, Milton R., Baltimore
 Striner, Benjamin, Baltimore
 Sullivan, Stephen G., Ellicott City
 Timmons, Norris F., Claiborne

Velten, John J., Baltimore
 Weinberg, Henry, Baltimore
 Weisman, Samuel, Baltimore
 Wharton, John C., St. Michael's
 Whitaker, Frank B., Laurinburg, N. C.
 Yaffe, Samuel S., Baltimore
 Zeigler, Margaret B., Baltimore
 Zervitz, Max M., Baltimore

UNCLASSIFIED STUDENTS

Beal, Cecil F., Frostburg
 Brodsky, Emmanuel M., Baltimore
 Flom, Charles, Baltimore

Hamill, Estelle R., Baltimore
 Marx, Ernest Burleigh, Baltimore
 Taft, Antoinette R., Baltimore

Urban, George E., Westport

THE SUMMER SCHOOL—1926

Aaronson, Virginia J., Aberdeen
 Abbott, Kathryn K., Washington, D. C.
 Abrams, George J., Washington, D. C.
 *Adkins, Charles S., Newark
 *Aldridge, Wm. K., Centreville
 Allen, Alfred P., Kinsale, Va.
 Allen, Rowennetta S., Clinton
 Allen, Susie R., Prospect, Va.
 Anderson, Bowman C., Clarendon, Va.
 Anderson, Mary B., Steubenville, Ohio
 Armstrong, Esther P., Gaithersburg
 Arnold, Abbie D., Brentwood
 Ashton, Mary M., Clarksburg
 Baden, Clara G., Brandywine
 *Baity, Earl C., Street
 Baker, Alma R., National
 Baker, William A., Mt. Airy
 Baldwin, Kenneth, Laurel
 Bankert, Louise I., Union Mills
 Barnhill, Theresa M., Cumberland
 Barnsley, Effie G., Rockville
 Bart, Isabel I., Washington, D. C.
 Bartlett, Reta V., Cumberland
 *Beachley, Ralph H., Middletown
 Beall, Dorothy I., Chevy Chase
 Beall, Susie C., Beltsville
 Bear, Elizabeth H., Riverdale
 Beard, Edythe, Washington, D. C.
 Beaumont, Dorothy, Ridgely
 Becraft, Mabel V., Washington Grove
 Beebe (Mrs.), Evalene B., Wash., D. C.
 Benjes, Gertrude H., Baltimore
 Bennett, Bertha M., Upper Marlboro
 Bennett, George E., Mardela Springs
 Biggs, Grace M., Jessup
 Billingsley, Georgie K., Brandywine
 Billmeyer, Bruce R., Cumberland
 Birmingham, Angela M., Cumberland
 Bishop, Miriam T., Carmichael
 Blake, Margaret D., Baltimore

Bland, Annie E., Suitland
 *Blunt, Forrest P., Mardela Springs
 Bock, Adah F., Washington, D. C.
 Bonneville, Jennie E., Pocomoke City
 *Boston, Josiah W., Berlin
 Boston, Margaret L., East New Market
 Boswel, Mary T., Clear Spring
 Bounds, Mary, Pocomoke
 Bourdeaux, Geneve, Washington, D. C.
 Bowser, Katherine R., Williamsport
 Boyle, Elizabeth G., Frederick
 Boyle (Mrs.), Edith M., Tilghman
 Brackbill, Frank Y., Berwyn
 Bradley (Mrs.), Jeanette, Hyattsville
 Brady, Eleanor F., Aquasco
 Brady, Henryetta B., Aquasco
 Brashears, Florence P., Landover
 Bricker (Mrs.), Kathryn M., Rockville
 Brookbank, Annie V., Charlotte Hall
 Browne, Mary M., Chestertown
 Buckley, Reba, Port Deposit
 Bulger, Kathleen M., Washington, D. C.
 Burdette (Mrs.), Ola L., Damascus
 Burnside, Merrill D., Washington, D. C.
 Bush, Grace, Washington, D. C.
 Butler, Minibel, Federalsburg
 Cady, Ruth V., Beltsville
 Caldwell, John H., St. Michaels
 *Cameron (Mrs.), Edith B., Hyattsville
 *Cameron, Raymond M., North East
 Canter, Grace M., Hughesville
 Carmine, Florence J., Cambridge
 Carpenter, Zelda N., Washington, D. C.
 Carrick, Mary A., Washington, D. C.
 Caulfield, Mary S., Laurel
 Cecil, George W., Walkersville
 *Chandlee, Elmer K., Smithburg
 Chandler, Miriam T., Nanjemoy
 Charlton, Marion J., Williamsport
 *Clapp, Houghton G., Brentwood

* Denotes Graduate Students in Summer.

Clayton, Louella M., Mt. Rainier
 Clopper, Nellie M., Clear Spring
 *Coe, Joseph E., Davidsonville
 Coleman, Veronica C., Cumberland
 Condiff, Margaret M., Solomons
 Conner, Lena T., Street
 Connick, Edna M., Baden
 Connick, William R. C., Baden
 Connor, Nellie V., Frostburg
 *Cooke, Giles B., Gloucester, Va.
 Cooper, Norma C., Denton
 Corcoran, Mabel L., Hyattsville
 *Cochrane, Laura C., Greensburg, Pa.
 Cottman, Harry T., Pocomoke
 Cox, Thelma C., Washington, D. C.
 Craig, Evelyn M., Elkton
 Crew (Mrs.), Achsah V., Kennedyville
 *Crider, Bess M., Jefferson, Okla.
 Cross, Ruth M., Croome
 Crothers, Austin L., Elkton
 Crow, Kathleen G., Frostburg
 Crumb, Mary R., Washington, D. C.
 Currier, Rodney P., Washington, D. C.
 Cush, Bessie B., Washington, D. C.
 Cush, Eileen T., Washington, D. C.
 Dale, Katherine L., Whalesville
 Dallas, David, Salisbury
 Davies, George G., Collingdale, Pa.
 Davis, Frank R., Darlington
 Davis, Melvin B., Baltimore
 Day, Roger X., Oakland
 Deibert, Elmore R., Havre de Grace
 Dent, Howard M., Cedarville
 Dent, Ida L., Oakley
 Dent, Lettie M., Oakley
 Dick, J. McF., Jr., Salisbury
 Dickerson, Etta G., Snow Hill
 Diehl, William C., Clear Spring
 Ditman, Lewis P., Westminster
 Dix, Jefferson, College Park
 Dorsey, Agatha, Midland
 Doukas, James T., Towson
 Downs, Edna K., Williamsport
 Drury, Eleanor A., Barton
 Duckwall, Margaret M., Berkeley Springs,
 West Virginia
 Dyer, Marian C., Issue
 Early (Mrs.), Angela D., Brandywine
 Eley, Ortha M., Ingleside
 Elliott, Clara M., Vienna
 Elliott, Sarah V., Laurel
 England, Maude R., Rockville
 Engle, Margaret G., College Park
 Ericson, Charlotte M., Riverdale
 *Espey, Louise, Washington, D. C.
 Etchison (Mrs.), Katherine S., Pocomoke
 *Faber, John E., Washington, D. C.
 *Farley, Horace B., Albion, Mich.
 Farnham, Ralph W., Berlin

Farver, Albert L., Cambridge
 Feaga, Ruth E., Lime Kiln
 Fiery, Ruth C., Hagerstown
 Fleming, Christian M., Baltimore
 Flounders, Dorothy E., Ridgely
 Ford, Edwin L., Washington, D. C.
 Forshee, Edith D., Washington, D. C.
 Frazier, Karl B., Hurlock
 Freeman, Mary J., Du Bois
 Freeny, Frances F., Delmar, Del.
 Freeny (Mrs.), Lelah H., Delmar, Del.
 Froehlich, Wilfred E., W. Palm Beach,
 Florida
 Fulgham, Evel W., Washington, D. C.
 Fulks, Iva C., Gaithersburg
 Gallahan, Jessie M., Brandywine
 Ganoza, Juan J., Peru, S. A.
 Ganoza, Manuel R., Peru, S. A.
 Garber (Mrs.), Eliz. D., Washington, D. C.
 Garden, William M., Anacostia, D. C.
 Gary, Ruth E., Washington, D. C.
 Geiger, Elizabeth M., Washington, D. C.
 Getty, Frank J., Grantsville
 Gibson, Eleanore P., Oxford
 Gillespie, Loleta, Pocomoke
 Gingell, Helen V., Berwyn
 Goldsmith, Caroline O., Waldorf
 Goslin, Isabelle C., Cambridge
 Gossard, Mary K., Williamsport
 Gough, Katharine L., Laurel
 Granger, Albert F., Kattskill Bay, N. Y.
 *Grape, Nell W., Chicago, Ill.
 Gray, Ellen H., Reisterstown
 Gray, Emma E., Colora
 Gray, Sadie L., Riverside
 Graybill, Mary R., College Park
 Greenwell, James C., St. Mary's
 Griffith, Della M., Hurlock
 Griffith, Mary I., Upper Marlboro
 Gudger, Maria A., Hyattsville
 Hackett, Thomas P., Queen Anne
 Hadaway, Ella J., Rock Hall
 Hager, Cora E., Frostburg
 Haller Elizabeth R., Frederick
 Halper, Arthur M., New York, N. Y.
 Hanna, Mary G., Westernport
 Harbaugh, Eva L., Sabillasville
 Harley, Roger G., Brunswick
 Harrison, Mabel, Laurel
 Harth, Rexford B., Hagerstown
 *Hauver, William E., Myersville
 Hay, John O., Kensington
 Hayes, Mary D., Washington, D. C.
 Heck, R. Franklin, Frederick
 Heil (Mrs.), Myra B., Washington Grove
 Henderson, Eleanor B., Cumberland
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 Herzog, Fred C., Washington, D. C.
 Hignutt, Alice F., Denton

Hoffhine, Bertha F., Hagerstown
 Hoffman, John C., Adamstown
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 Hogarth, Anna B., Ijamsville
 Hope, Myrtle, Second Creek, W. Va.
 Holmes, George K., Washington, D. C.
 Holmes, Miriam M., College Park
 Hoover, Rhoda P., Hagerstown
 Hopwood, Mason H., Washington, D. C.
 Hosken, Margaret E., Frostburg
 Hosken, Stella L., Frostburg
 House, Elizabeth B., Flintstone
 Howes (Mrs.), Grace B., Rockville
 *Howland, Lionel B., Upper Marlboro
 Hudson, Yola V., Cumberland
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 Hull, George R., Woodsboro
 Huyett, Earl D., Hagerstown
 Huyett, Eva V., Hagerstown
 Hyde, Mabel D., Pisgah
 Inskeep, Lillie M., Barton
 Irvine, Elsie V., Chevy Chase
 Isiminger, Harry R., Hagerstown
 Israelson, Reuben H., Baltimore
 James, Jennie P., Mt. Rainier
 Jameson, Annie B., Hill Top
 Jamison, Louise E., Bakersfield, Cal.
 Jenkins, Hazel E., Salisbury
 *Jenness, Samuel M., Colora
 Jewell, Edgar G., Glen Echo
 Johnson, Mary K., Anacostia
 Johnson, Mildred A., Baltimore
 Jones, Arvin P., New Windsor
 Jones, Helen W., Stockton
 Jones, Margaret C., Frostburg
 *Jones, Ollie P., New Windsor
 Jones, Ruth S., Olney
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 Kefauver J. Orville, Mt. Savage
 Keister (Mrs.), Hise L., Oldtown
 Keister, Monroe F., Oldtown
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 Kerby, Olive G., Bennings, D. C.
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 *Klein, Ethel L., LeGore
 *Klein, Truman S., Union Bridge
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 Kosentra, Anna S., Chicago, Ill.
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 Manahan, Martha E., Westminster
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 Reich, Richard H. L., La Plata
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 Rice, Elberta T., Rockville
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 Rice, Russell B., LeGore
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 Rose, Mary L., Hyattsville
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 Russell, Ida F., Washington, D. C.
 Ryan, Grace L., Kensington

Savage, Mary E., Rockville
 Schnauffer, William, Brunswick
 Schnebly, Katie L., Williamsport
 Schrader, Floyd F., Kaukauna, Wis.
 Scott, Sara M., Pocomoke City
 Semesky, Gustav J., Little Falls, N. J.
 Shank, I. K., Hagerstown
 Shaw, James L., Cumberland
 Shenck, George A., Landisville, Pa.
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 Shockley, Dorothy J., Eden
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 Smith, Nellie E., Cambridge
 Smith, Nellie V., Flintstone
 Smith, Opal L., Landover
 Smith, Ruth E., Frederick Junction
 Snouffer, Edward N., Jr., Buckeystown
 Sparks, Bertie M., Henderson
 Sparks, Mary H., Sudlersville
 Spinney, Archie, Baltimore
 *Spring, Bernice E., Adamstown
 Staley, Daniel R., Knoxville
 Stanton, Harvey H., Grantsville
 Stapleton, Margaret M., Cumberland
 Startt, Walter S., Chestertown
 Steele, Mary I., Clear Spring
 Stegmaier, Rosemarie C., Cumberland
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 Stewart, Caroline L., Collington
 *Stewart, J. Raymond, Street
 Stewart, M. L., Rising Sun
 Stewart, Viola E., Streett
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 Stubbs, Donald S., Street
 *Tarbell, William E., Accident
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 Taylor, Margaret K., Perryman
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 Thomas, Emily M., Adamstown
 Thomas, Olive J., Libertytown
 Thomas, Winifred V., Whiteford
 Tompkins, Frances T., Snell, Va.
 Tongue, S. Jane, Coster
 Umhau, Katharine S., Washington, D. C.
 Unkle, Lillian V., Piscataway
 Utterback, Charles L., Brunswick
 Van Stavern, Cora, Pickaway, W. Va.

Wailles, Cornelia L., Salisbury
 Walk, Mildred D., Lonaconing
 Wallett, Fred D., Havre de Grace
 Walters, Francis P., Cumberland
 Warren, Helen, Snow Hill
 Warren, Mary, Snow Hill
 Warren, Mary E., Berlin
 Warren, Warren, Snow Hill
 Warthen, Albert E., Monrovia
 Waterfield, Edith L. P., Pocomoke City
 Wathen, Edna L., Newport
 Wathen, Mary D., Newport
 Watkins, Emily C., Mt. Airy
 Watkins, Flora E., Monrovia
 Watkins, Hazel M., College Park
 Watkins, Myrtie E., Monrovia
 Watson, Catherine, Chestertown
 Watson, Kaleda A., Girdletree
 *Webster, Ralph R., Deal's Island
 Weigand, Edward C., Hagerstown
 Welch, Mary M., Ridge
 West, Mary W., North East
 White, Arthur P., Pittsville
 White, Iris T., Salisbury

*Denotes Graduate Students in Summer.

EXTENSION CLASSES IN COAL MINING AT FROSTBURG

Arnold, Domineck
 Barrick, Ember J.
 Barry, John P.
 Burrell, Fitzhugh
 Dennison, Allan
 Duckworth, Simeon

Eisel, William R.
 Festerman, Walter
 Foote, Felix, Jr.
 Friend, Clarence
 Hyde, Chester A.
 Kirkwood, R. G.
 McDonald, Kinsley

Miller, Earl
 Penman, Andrew
 Ross, Russell
 Shields, Charles
 Weisenborne, James A.
 Whiteman, Simeon H.

SUMMARY OF STUDENT ENROLLMENT AS OF

MAY 1, 1927

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College of Home Economics	46
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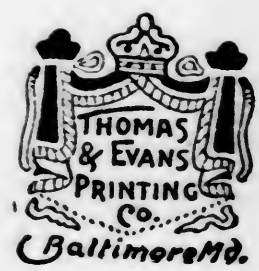
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Any further information desired concerning the University
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